Ontario Ministry of Health and Long-Term Care

Evaluation of Primary Care Reform Pilots in Ontario
Phase I - Final Report

March 31, 2001

PRICEWATERHOUSECOOPERS

EVALUATION OF PRIMARY CARE REFORM PILOTS IN ONTARIO
PHASE 1 FINAL REPORT

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

PART A: DESCRIPTION OF PRIMARY CARE REFORM IN ONTARIO

Section 1 Introduction 1

1.1 Purpose of this Report 2
1.2 History and Development of Primary Care Reform in Ontario 3
1.3 Perspectives on the Essential Elements of Primary Care Reform 5
1.4 Comparison of Existing and Proposed Primary Health Care Delivery Systems and Strategies 5
1.5 Commitment to Reform 6
1.6 Summary 8

Section 2 Overview of Primary Care Model Components 9

2.1 Site Overview 9
2.2 Goals and Objectives of Primary Care Reform 10
2.3 Legal Framework 10
2.4 Remuneration 13
2.5 Enrolment (Rostering) 15
2.6 Teletriage 16
2.7 Nurse Practitioners 18
2.8 Overview of Interrelationship of Key Stakeholders 18
2.9 Health Services Organizations 20
2.10 Summary 21

Section 3 Overview of Primary Care Pilot Sites 22

3.1 Site Catchment Area Demographic Profiles 22
3.2 Primary Care Network Overview 27
3.3 The Provincial Picture 31
3.4 PCR Site Maps with Catchment Areas and Office Locations 36

PART B: THE FOUNDATION FOR AN EVALUATION OF PRIMARY CARE REFORM PILOTS

Section 4 Literature Review of Primary Care Evaluation 42

Section 5 Primary Care Evaluation Methodology 43

5.1 Overview of PricewaterhouseCoopers' Approach and Methodology Framework 43
5.2 Development of Surveys 46
5.3 Other Methods of Data Collection 46
5.4 Evaluation Activities Completed To Date 47
5.5 Summary 48

Section 6 Key Informant Views on the Evaluation 49

PART C: PRELIMINARY FINDINGS AND IMPLEMENTATION EXPERIENCES

Section 7 Physician Characteristics 52

Section 8 Network Characteristics 54

Section 9 Contract Negotiations 56

9.1 Overall experience 56
9.2 Negotiating the content 56
9.3 Relationship with the MOHLTC 59
9.4 Summary 60

Section 10 Enrolment 62

Section 11 Governance 66

11.1 Models 67
11.2 Perspectives regarding the Requirement to have a Governance Agreement 68
11.3 Experiences with Governance 69
11.4 Group Formation and Group Dynamics 69
11.5 Summary 70

Section 12 Payment Mechanisms 71

12.1 Preamble 71
12.2 Capitation 71
12.3 Reformed-fee-for-service 73
12.4 Fee-for-service and non-fee-for-service patients 74

12.5 Roster size 75
12.6 Outside use or negation rates 75
12.7 Inclusions and Exclusions in the Capitation Rate 76
12.8 On-call Issues 77
12.9 Capitation Rate Increases 77

Section 13 Budgets 79

Section 14 Staffing and Multidisciplinary Involvement 83

14.1 Site Leader/Network Leader 83
14.2 Administration/Administrative Staff 83
14.3 Other Health Care Providers 83
14.4 Summary 84

Section 15 Nurse Practitioners 85

15.1 The Role of Nurse Practitioners 85
15.2 Nurse Practitioner Perspective 86
15.3 Physician Perspective 88
15.4 Patient Satisfaction 89
15.5 Summary 89

Section 16 Providing Patients with 24-Hour Access to Care 91

16.1 Extended Office Hours 91
16.2 Teletriage 93
16.3 Physician Experiences with Implementation of Teletriage 99

Section 17 Information Technology Assessment and Acquisition 104

17.1 Background and Functional Requirements 104
17.2 Assessment of IT Needs 105
17.3 IT Selection 105
17.4 IT Budgets 106
17.5 IT Implementation 107
17.6 Overall Views about the IT Component of PCR 108
17.7 Summary 109

Section 18 Physician Satisfaction 110

18.1 Change in Practice Patterns 110
18.2 Expectations 110
18.3 General Satisfaction 110

Section 19 Patient Satisfaction 114

19.1 Methodology 114
19.2 Findings 114
19.3 Key Success Factors for Implementation 120
19.4 Key Success Factors for Delivery 120

PART D: SUMMARY

Section 20 Summary of Findings 122

Section 21 Considerations for Moving Forward 126

APPENDICES (Separately Bound)

Appendix A: Comparative Perspectives on the Essential Elements of Primary Care Reform
Appendix B: Description of Ontario's Primary Care Reform Model
Appendix C: Comparison of Primary Health Care Delivery Systems and Strategies
Appendix D: Site Catchment Area Demographics
Appendix E: Overview of the Literature on the Evaluation of Primary Care Reform
Appendix F: Key Informant Views on the Evaluation
Appendix G: List of Key Informants
Appendix H: Interview Guides for Key Informant Interviews
Appendix I: List of Focus Group Participants
Appendix J: Focus Group Agenda
Appendix K: Information regarding Evaluation Methodology
Appendix L: Site Interview Participants
Appendix M: Interview Guides for Site Interviews
Appendix N: References

EXECUTIVE SUMMARY

Numerous jurisdictions, both within Canada and internationally, have undertaken some type of reform of the delivery of primary health care services. Although there appears to be agreement over the need for reform, there are many models, existing and proposed, outlining how reform should be implemented.

The goals of primary care reform, as articulated in 1998 when the Ministry of Health and Long Term Care adopted recommendations from the Primary Care Reform Steering Committee are: improved access, improved quality and continuity of care; increased patient and provider satisfaction; and increased cost-effectiveness of health care services.

In Ontario, seven sites were initially selected to pilot a new model of primary care service delivery. The model currently being evaluated in Ontario is based on a Primary Care Network (PCN) of physicians and other health care providers, who enrol patients for the provision and co-ordination of primary care services. After hours assistance is provided through a telephone triage service. There are financial incentives for PCNs to provide preventative interventions. It is expected that information technology will be integrated into practice. Two physician remuneration mechanisms are being tested in the Ontario pilot. Most of the pilots are using a "capitation" model where physicians are funded based on the number of patients enrolled with them and not on the amount of service that they provide to each patient. At present, one of the pilots is testing a "reformed fee-for-service" model which is a modified version of the traditional physician remuneration method where physicians are paid based on the amount and type of service provided to patients.

PricewaterhouseCoopers has been commissioned by the Ministry of Health and Long-Term Care (MOHLTC) to conduct an evaluation of the primary care reform pilots in Ontario. This document is the Final Report of the first phase of a three-phased evaluation. The purpose of Phase 1 of the evaluation is to describe the experience of implementing the pilot networks. Future phases of the evaluation will assess the service delivery processes in place in the pilot networks and the outcomes achieved relative to the reform goals.

The evaluation methodology centres on the framework developed by Dr. Barbara Starfield of Johns Hopkins University. The Starfield framework assesses primary care reform on the following four indicators, which can be closely linked to the four goals set out for primary care reform in Ontario: first contact care, longitudinality (patient focussed care overtime), comprehensiveness and co-ordination. Research has shown that primary care reform models centred on these four elements produce the best health outcomes.

The evaluation project was officially launched in January 2001. Activities to date have focussed on gaining an understanding of the demographics of each site and gathering information related to the implementation of the pilot networks. We have also gathered basic statistics on the Primary Care Networks such as the number of providers involved, the number of patients enrolled and the physician to patient ratio.

Qualitative information has also been obtained through a variety of consultation strategies including: over 25 key informant interviews, a focus group with representatives from the Ministry of Health and Long Term Care, interviews with over 40 physicians and other staff in the 11 active PCNs and four patient focus groups.

Summary of Phase 1 Findings

Network Characteristics

We evaluated eleven active PCNs: the eight PCNs in Hamilton and one in each of Chatham, Paris and Kingston. Some of the networks were formed based on historical relationships among physicians. These groupings were often formed around larger groups of physicians who shared office space and/or after-hours call groups.

Critical differences between the networks identified include: the number of physicians in the group (from seven to 21), geography, the existence of multidisciplinary teams, the extent of shared identity; whether or not the offices are in a shared call group; the extent to which the participants and practices collaborate in community initiatives and outreach; the amount of sharing of common experiences and troubleshooting through meetings and telephone calls; collaboration related to IT. In all networks there appears to be greater interaction among health care providers than prior to PCR.

Physician Characteristics

Overall there were a number of similarities in the characteristics of the 145 physicians participating in PCR, as well as their reasons for participating. For some there was a desire to take part in a program that could lead to improved quality of care for their patients. For others the offer of financial support for the acquisition of new information technology systems by the MOHLTC was the key factor in participating in the pilot. However, physicians were interested in using the new IT systems to enhance patient care.

The average age of the participating physicians is approximately 48 years, and the average length of time in practice is 23 years. Approximately 40% of physicians in the pilot are female, compared to the provincial average where 32% of general practitioners are female. Thirty percent of the physicians formerly practiced in a Health Service Organization (HSO) – an alternative payment model that includes patient enrolment and capitation. This is substantially higher than the provincial average for HSO physicians of 2.2%.

The Contract Negotiation Process

Generally individuals described the contract negotiation process as long and arduous, and that it took up far more time in meetings than was anticipated. The contract negotiation process was difficult for every network, however, physicians were generally satisfied with their contract except for those under the reformed-fee-for service payment model.

The plan for the primary care pilot included seven sites: Hamilton, Kingston, Chatham, Paris, Parry Sound, Ottawa and Thunder Bay. To date four of these sites (Hamilton, Kingston, Chatham and Paris) are active and have established primary care networks. Parry Sound and Ottawa have signed their legal agreements and are in the process of setting up networks.

The Enrolment Process

Approximately 220,000 patients have been rostered. Some communities have had significant success with rostering. For example, Paris PCN is at 111% of its estimated enrolment target and five other PCNs are above 80% of their enrolment target.

Many physicians identified rostering as the biggest challenge to starting up their primary care network. There was general consensus that the enrolment process was tedious and very labour intensive. For many physician offices it required evening and weekend work and impinged on administration and patient care time. Some practices hired extra staff to assist with rostering. There were concerns expressed about the level of English required to complete the forms; the complexity of the Consent to Release Personal Health Information; and the lack of understanding on the part of the patient with regard to their responsibility as a rostered patient.

Governance Requirements and Leadership Roles

Under the terms of their PCN contract, all physicians within a network were required to have a written agreement setting out their decision-making approach and signing authority. Different approaches were taken to the development of these governance structures.

Individual offices within each PCN tend to operate as separate practices with separate assets. The only shared asset among the individual practices is a shared bank account for Ministry funding for the network. All networks have a network leader and some have an executive committee typically consisting of three or four members. In Hamilton where there are eight PCNs, there is also a site leader who plays a coordination role for all of the sites in Hamilton.

The Payment Mechanisms

All of the networks are using the capitation method of physician remuneration except Chatham which is using the reformed fee-for-service method. Some of the issues raised with respect to the capitation method include: roster limits; outside use or negation rates; inclusions and exclusions of services/procedures in the capitation rate; capitation rates for the elderly, capitation rate increases and on-call coverage. A much lower level of satisfaction was reported by physicians using the reformed fee-for-service method. Issues include a lower than expected level of income in the initial stages, difficulty accessing the benefits of the bonus codes, rostering requirements and on-call coverage.

Budget Requirements

The MOHLTC required budgets for: administration of the enrolment process; network administration; information technology; and nurse practitioners (where applicable). There were varying levels of satisfaction with the budgets and disbursements of funds across the PCNs. Many physicians found the process challenging because they had little or no prior experience with budgets and administration. Another common concern was the delay in approval of funding by the Ministry.

Nurse Practitioners in PCR

There are currently seven nurse practitioners, working in the PCNs. Many of them have at least a decade of nursing experience, and areas of specialty (i.e. wound care, obstetrics, women's health etc). All of the nurse practitioners are female. The ratio of nurse practitioners to physicians varies across the networks from 1:2 in rural Kingston to 1:21 in one of the Hamilton PCNs. The role of nurse practitioners in PCR varies greatly, influenced mostly by the physicians with whom they practice. Their roles include well patient exams (especially well female exams on behalf of male physicians), home visits, preventative care, patient education and assisting with on-call coverage. Some of the nurse practitioners carry their own patient caseload, providing the full range of services that they are empowered to perform. Patient focus groups indicate that there is a high level of patient satisfaction with the introduction of nurse practitioners.

Providing Patients With 24-Hour Access To Care

The pilot PCNs use three strategies to ensure that rostered patients have access to care 24 hours per day, seven days per week: extended office hours; physician on-call coverage; and teletriage service.

Some physicians report that the opportunity to share on-call with a larger group has been one of the benefits of primary care reform because it reduces the burden on individual physicians and improves lifestyle. One of the concerns that have been raised about broader on-call coverage arrangements is the diversity of patient profiles found in different practices.

The most striking feature of teletriage utilization to date has been the high volume of calls. Between October and December 2000, rostered patients made a total of 4,840 calls to the teletriage line. The teletriage service provider reports that this represents 203% of calls estimated in the telephone triage contract. Of the calls where gender was identified, females made 62% of the calls and males made 38% of the calls. Data for the first three months of operation of the teletriage service suggests that the service has redirected callers to different care options than they would have otherwise sought. For example, from October to December 2000, 375 callers said they were planning to seek emergency care. Only 102 callers were actually advised by the teletriage service to seek emergency care. Physicians have mixed views on the teletriage service and have received mixed feedback from their patients. However, the high and growing number of calls to the teletriage line suggests some level of patient acceptance of the service.

Information Technology Assessment And Acquisition

The information technology (IT) component of PCR is extremely important to physicians. A cost-sharing arrangement is in place by which the Ministry pays two-thirds of the cost of new IT systems and the physician pays one-third of the cost. The Ministry has also set out minimum standards in terms of IT functionality.

Most of the physicians interviewed said that one of their main reasons for volunteering to be part of a primary care network pilot was to benefit from the opportunity to pursue new and advanced information technology. Some physicians expressed a specific desire to implement electronic medical records and move towards a paperless office. On the other hand, when physicians were asked to identify the "biggest challenge in getting your PCN up and running" the second highest response was acquisition and implementation of information technology.

Overall, physicians felt ill-prepared for the process of assessing their IT needs and selecting an IT system. Although the Ministry provided funding for PCNs to hire management consultants to help them with this process, many PCNs were not fully satisfied with the advice they received. Some PCNs are very pleased with their IT acquisitions but others have experienced a variety of implementation setbacks and ongoing technical support problems. Although the IT systems are not yet doing all of the things they were intended to do, many physicians are now using preventive reminders, clinical templates and laboratory linkages. Interestingly, it is not uncommon for physicians within the same network to have purchased different IT systems. This may have implications for future integration and connectivity.

Physician Satisfaction

Despite the many implementation challenges, at this stage in the reform, physicians in most networks report a fairly high level of satisfaction with primary care reform. Most of the physicians interviewed are more satisfied now than they were prior to primary care reform. However, it is also important to note that approximately one in five physicians are less satisfied now than they were before taking part in primary care reform. When asked to think back to the reasons why they decided to get involved with primary care reform, over 70% of the physicians interviewed said their expectations have been met. It is important to note that the results for Chatham are quite different. Physicians in this PCN report a very low level of satisfaction with primary care reform.

Seventy percent (70%) of physicians have not noticed changes in their practice patterns since joining a PCN. Similarly, 64% of physicians do not think that their patients have noticed any changes either. When changes were noted, they most often related to after hours coverage or information technology.

Patient Satisfaction

Based on patient focus groups at two of the PCN sites, there was general agreement that the quality of care received by patients was directly related to the way the individual doctor chooses to approach their profession. Former patients enrolled in an HSO noticed little change under primary care reform. Those patients not used to after-hours on-call access to their physicians noticed the most difference. There was consensus that patients, appreciated having access to a nurse practitioner. Patients felt that they had an appropriate level of access to the services they needed. In terms of overall satisfaction, all patients in the focus groups reported an overall satisfaction level of at least seven out of ten.

****

This report was prepared at a very early stage in the study process making it difficult to propose concrete recommendations. However, a great deal of very helpful and insightful information was obtained on the implementation of primary care networks. Since the province-wide expansion of primary care reform is scheduled to begin very shortly, it is important to capture the evaluation's early learnings so that the Ministry can begin to address the questions posed by the pilot experiences. Some of the areas to be addressed going forward include the Ministry infrastructure, the evolving model, information technology and stakeholder relationships.

PART A: DESCRIPTION OF PRIMARY CARE REFORM IN ONTARIO

Section 1 **Introduction**
Section 2 **Overview of Primary Care Components**
Section 3 **Overview of Primary Care Pilot Sites**

SECTION 1: INTRODUCTION

Section 1.1 Purpose of this Report

Ontario is in the midst of significant reform of its health care system, including the administration and delivery of primary health care services. A new model of primary care is being pilot tested in a few communities prior to expanding the model province-wide. The Ministry of Health and Long-Term Care, in collaboration with the Ontario Medical Association, recognizes the importance of an objective, rigorous evaluation to assess the success of the pilots and capture learnings to inform a broad province-wide implementation. PricewaterhouseCoopers LLP has been commissioned to carry out this evaluation.

The terms of reference for the evaluation specify that the evaluation will be made up of three (3) phases. Phase 1 will be descriptive in nature and will assess the implementation process. Phase 2 will focus on an evaluation of the primary care reform process. Phase 3 will be an impact evaluation to determine the reform's results or outcomes.

This evaluation was launched January 2001. It reflects the findings of the initial three months of the evaluation. This is the final report on Phase 1 of the evaluation. The purpose of this report is to describe the background of primary care reform, key features of the pilot networks, evaluation activities conducted to date and the implementation experience. The Phase 1 report is based on information collected from a variety of sources and using a variety of data collection methods including:

- 28 key informant interviews
- 63 interviews with PCN physicians, other providers and administrative staff
- Four patient focus groups conducted at two PCNs (Carlisle and Kingston)
- An office-start-up questionnaire completed by 28 offices
- A review of background information including PCN contracts, PCN budgets and roster statistics
- Analysis of demographic data on the PCN communities

This report is divided into four sections:

- Part A focuses on the history and evolution of Primary Care Reform in Ontario and the key components of the primary care reform model
- Part B briefly highlights findings from the literature review and the key informant interviews that will be helpful in guiding the evaluation and outlines the evaluation methodology
- Part C describes implementation findings and preliminary lessons learned
- Part D summarizes the findings and offers advice for moving forward

There are a variety of perspectives on how primary care reform should be undertaken. At the outset, it is important to set the stage and create a common understanding of primary care reform in Ontario. The remainder of this section outlines the history and development of primary care reform in Ontario. It describes the impetus for reform and provides a description of Ontario's model. The section also references other models, both existing and proposed, for the delivery of primary health care services. Lastly, we consider the ongoing commitment to reform.

Section 1.2 History and Development of Primary Care Reform in Ontario

In July 1996, the Ontario Ministry of Health and Long Term Care (the "Ministry" or the "MOHLTC") and the Ontario Medical Association ("OMA") announced the implementation of province-wide primary health care reform. At that time, an external steering committee was established to provide the Ministry with advice to guide primary care reform, and to recommend locations for primary care reform pilot sites. Primary care reform is being tested in seven sites across the province.

Primary care reform in Ontario is based on the concept of a network of physicians, as well as other health care providers, at one or more locations, who enrol patients for the provision and co-ordination of primary care services. While it is recognised that flexibility is required to ensure that the approach is tailored to community needs, a number of key elements are consistent across all primary care reform sites:

- Population-based funding for physician services, either through reformed fee-for-service or global capitation mechanisms
- Enrolment of patients
- Telephone triage (to provide 24 hour accessibility)
- Incentives for preventative interventions
- Integration of information technology into practice

The goals of primary care reform in Ontario were articulated in 1998, when the Ministry of Health and Long Term Care adopted recommendations from the Primary Care Reform Steering Committee. They include improved access, quality and continuity of care; increased patient and provider satisfaction; and increased cost-effectiveness of health care services. Specific objectives were also identified, including improved co-ordination of patient care; decreased duplication of patient care and diagnostic testing; and increased preventative care.

a) The Impetus for Primary Care Reform

Concerns about the ability of the current health care system to address both current and anticipated health care needs are driving primary care reform across the country. A number of consistent issues have been identified:

- Lack of communication and information sharing across the health care sector
- Financial incentives built into the fee-for-service remuneration model
- Fragmentation of care as patients move across the system
- Uneven access to primary care
- Increase in "office only" primary care physicians

These issues are all the more pressing given trends in health care utilisation and patient care. For example, health care consumerism is a growing trend. Individuals increasingly seek information about treatment options and prefer a shared decision making model. Such a model can be supported by a strong primary care sector, with its focus on building relationships between patient and provider.

With an ageing population, increases in health care utilisation can be anticipated. However, many physician visits can be avoided, or treated by another type of health care provider. PricewaterhouseCoopers' data from the United States suggests that individuals who perceive themselves as sick but viewed by their physician as healthy ("Worried,Well") on average make more visits to their primary care physician than those who perceive themselves as sick and are viewed by their physician as sick – 9.8 visits per year versus 9.4 visits per year.

Breakdown of population by self perceived health and by physician view of their health and the average per capita physician visits for each group

Physician Visits

		Patients' Perception	
		Well	Sick
Doctors' Opinion	Well	Well 75% 3.4 Visits/ Year	Worried, Well 10% 9.8 Visits/ Year
	Sick	Symptomatic 10% 4.5 Visits/ Year	Sick 5% 9.4 Visits/ Year

Source: PricewaterhouseCoopers LLP; Healthcast 2010

This strongly supports the need to better manage the patient-provider relationship and better continuity of care.

b) Issues and Opportunities for Primary Care Reform

In the past, the complexity of the health care system, the absence of clear options to fee-for-service payment, issues associated with information technology, and differences in the vision of primary care delivery models have all been identified as obstacles to primary care reform.

Several of these issues remain relevant to today's primary care reform environment, and will need to be carefully considered in any reform model. For example:

- Research into capitation funding for integrated health systems suggests that 'one size' does not fit all situations, and no one funding system is ideal (*Integrated Health Systems in Canada: Three Policy Syntheses*. J. Hurley, B. Hutchison, July, 1999). Regionally-based and enrolment-based models each have advantages and disadvantages. This suggests the need to carefully balance the requirements of each situation, weigh the risks and benefits of each payment model, and develop policies and processes, which address potential shortcomings.
- Debate continues around how primary care physicians should be paid. Fee-for-service, capitation and salary methods have each been demonstrated to create both desirable and perverse incentives. As a result, more complex blended funding approaches offering balanced incentives are thought to be the most appropriate approach. As well, blended funding can promote the achievement of specific policy objectives.
- Primary care reform relies on co-ordination through physician networking and increased computerisation. Developments in information technology including the ability to share relevant patient data in a secured, private fashion are key enablers to reform. However, challenges remain in the area of adequate standards for language and security. Primary care reform will likely evolve in parallel to developments in the IT infrastructure that supports it.

Section 1.3 Perspectives on the Essential Elements of Primary Care Reform

Primary care reform has been an area of focus for many professional practice groups and provincial/ federal committees. While all may agree as to the need for primary care reform, opinions differ as to what are some of the essential elements of primary care reform and how these elements should be implemented.

Appendix A provides a comparative view of the essential elements of primary care reform and the viewpoints of different groups such as the Canadian Medical Association and the Ontario Chairs of Family Medicine. The source for this table is the Health Services Restructuring Commission Primary Health Care Strategy Paper (HSRC, Dec. 1999). **Appendix B** provides a description of the evolution of Ontario's Primary Care Reform Model.

Section 1.4 Comparison of Existing and Proposed Primary Health Care Delivery Systems and Strategies

The model currently being tested in Ontario is not the only model proposed for primary health care delivery. There are other existing models for primary health care delivery such as Health Service Organizations and Community Health Centres, as well as proposed models such as Primary Health Care Groups.

Appendix C provides a comparison of existing as well as proposed primary health care delivery systems. The source for this table is the Health Services Restructuring Commission's Primary Health Care Strategy (HSRC, Dec. 1999)

Section 1.5 Commitment to Reform

The April 2000 agreement between the Ministry of Health and Long Term Care and the Ontario Medical Association demonstrates the commitment of both parties to primary care reform. Section 6 of the agreement addresses primary care and states as follows:

- Both parties agree to continue with primary care reform based on the following principles:
    - There will be freedom of choice for both physicians and patients as to whether they wish to participate in primary care reform
    - Evaluation of primary care reform shall continue to inform the parties of the preferred direction with respect to further implementation
- The issue of physician and patient accountability shall be determined after the evaluation of the pilot sites
- The MOHTLC will contribute funding for the acquisition of PCN information systems
- Pending an evaluation to the contrary, no limit shall be set on roster sizes in future PCN contracts provided that the physicians to whom the patient is rostered directly provides the majority of primary care medical services
- Physicians choosing to participate in new PCNs shall be eligible to do so subject to the template agreements and availability of funds
- The parties agree that the conversion from the fee for service pool of the actual values of services provided by physicians to rostered patients will take place.
- The parties agree that the final form of the agreement for physicians participating in PCR shall not be offered for implementation prior to April 1, 2001

The Ministry's Business Plan 2000-2001 identified "enhanced access to primary care through continued implementation of primary care reform" as a priority goal for the Ministry. The Business Plan set out the following measures, targets/standards and commitments:

Measures	Targets/Standards	2000-2001 Commitments
Number of primary care sites where reform is implemented.	Increase number of primary care reform pilot sites to seven.	Implementation of primary care reform at seven pilot sites.
Percentage of targeted patient enrolment rate achieved.	Average patient enrolment in each primary care network, 75% of target enrolment.	Achieve an average of 75% enrolment at four sites, average 25% enrolment at three remaining sites.
Number of primary care physicians joining primary care reform.	Number of physicians moving to primary care reform at seven sites, target of 275 physicians.	Complete conversion of 125 physicians at four sites. Complete 75% conversion at three remaining sites.

In its May 2000 Budget Speech, the government announced that it would invest $100 million over four years to expand primary care and $150 million for new information systems for transition to primary care networks. The government announced its goal to have 80% of eligible family physicians practising in primary care networks over the next four years. The province-wide expansion of primary care reform will begin on April 1, 2001.

On March 21, 2001 the government reconfirmed its commitment to primary care reform including a target to see 80% of family doctors join a network by 2004 and a financial investment of $250 million to establish the networks.

At the same time, Premier Mike Harris also announced the establishment of a new agency called the ***Ontario Family Health Network*** that has been created to oversee the implementation and expansion of primary care networks across the province. Dr. Ruth Wilson, a practicing physician, and professor of Family Medicine at Queen's University, has been appointed to chair the agency.

The mandate of the new agency is to support the planning, implementation and management of family health networks in Ontario by:
- Informing the development of program and operational policies and strategies related to enhancement of family health care for recommendations to the Ministry of Health and Long Term Care
- Implementing and managing programs, processes, and systems supporting family health
- Leading and supporting the ongoing evaluation of family health network initiatives

In fulfilling its mandate, the agency's roles and responsibilities include:
- Offering template agreements, developed by the Ministry and the OMA to physicians starting April 1, 2001
- Implementing, managing and monitoring contract signings
- Responding directly to public and provider inquiries about the operation of the agency
- Providing timely and accurate progress reports to the Minister[1]

The name of the new agency is significant because it reflects an important change in the primary care reform nomenclature. In a move to increase consumer understanding of primary care reform, primary care networks (PCNs) will, in future, be referred to as Family Health Networks.

According to Premier Harris:
"Making sure people can get professional medical advice – where and when they need it – is the driving force behind our Family Health Networks. These networks are an important part of our overall plan to create a system that delivers convenient, quality health care, closer to

---

[1] "Backgrounder – Government investments in the Ontario Family Health Network", Government of Ontario Press Releases, March 21, 2001, Toronto.

home…this is one important step in our government's comprehensive health care reforms. These networks will relieve pressure on other parts of the system such as emergency rooms."[2]

Section 1.6 Summary

Primary care reform is not a new phenomenon. The essential elements of primary care reform have been discussed at length by various stakeholder groups for numerous years. The pilot program currently being evaluated in Ontario is only one of several existing as well as proposed models for the delivery of primary health care services.

The Ontario model currently under evaluation is based on the establishment of primary care networks of physicians working with other providers to provide primary health care services to a rostered population, supported by an after hours telephone triage line and IT systems. Implementation of this was first announced in 1996 and resulted in the selection of seven pilot test sites. In April 2001, implementation on a province wide basis will begin. Responsibility for the implementation of PCR will rest with an agency called the Ontario Family Health Network and PCNs will now be called Family Health Networks.

---

[2] "Harris launches the Ontario Family Health Network", Government of Ontario Press Release, March 21, 2001, Toronto.

SECTION 2: OVERVIEW OF PRIMARY CARE MODEL COMPONENTS

Prior to evaluating any reform model, it is essential to understand the key components of the model. This section describes the components of primary care reform in Ontario which are common across all sites and networks. The purpose of this section is to set out the "current situation" to ensure a common understanding of the key elements which will form the context for the evaluation.

This section also discusses the current legal framework which governs the PCNs and describes the remuneration mechanisms used in the PCR model. Several aspects of PCR such as teletriage, IT implementation and the use of nurse practitioners are also described.

Section 2.1 Site Overview

To date, thirteen networks in six communities have signed agreements with the MOHLTC to participate in PCR. Eleven of these networks are fully operational. Each network has a physician lead. Hamilton, with eight networks also has an overall physician leader.

The following is a list of each site, each network and each site/network leader.

Site	Network	Site Leader/Network Leader
Paris	Primacare	Dr. John McDonald
Chatham	Chatham	Dr. Brian Gamble
Hamilton		Overall: Dr. Scott Wooder
	Stoney Creek	Dr. Ralph Profetto
	Carlisle	Ms. Sue Lomas
	Core	Dr. Mark Grafham
	Escarpment	Dr. Geoffrey Holdway
	Intramed	Dr. Steve Szarka
	Innovations	Dr. Leslie Solomon
	HCHC (Hamilton Community Health Centre)	Dr. Allen Greenspoon
	McMaster	Dr. Cheryl Levitt
Kingston	Rural Kingston	Dr. Daphne MacLean
Ottawa	(not yet operational)	Dr. Barry Bruce
Parry Sound	(not yet operational)	Dr. Richard Woodhouse
Thunder Bay	(not yet operational)	

Section 2.2 Goals and Objectives of Primary Care Reform

The OMA and MOHLTC have jointly developed the following goals and objectives for primary care reform:

- Improved access
- Improved quality and continuity of care
- Increased patient and provider satisfaction with the health care system
- Increased cost-effectiveness of health care services.

Section 2.3 Legal Framework

All of the networks in operation have signed a contract with the Ministry of Health and Long Term Care. The standard template agreement was negotiated centrally between the OMA and the MOHLTC. Individual PCNs negotiated hours of operation, geographic areas and outside use rates. Select key terms of the contract are set out below.

1. Governance

Prior to signing the contract the PCN must establish and document a governance structure which includes the PCN's philosophy and approach to the provision of primary care services, the PCN's procedures for decision-making and the names of the officers, directors and authorized signing officer or officers (where the PCN is a corporation) or the managing partner or partners and the authorized signing partner or partners (where the PCN is a partnership).

2. Basket of Services

The PCN shall ensure the provision of the following basket of services:

- Health assessment
- Diagnosis and treatment
- Primary reproductive care
- Primary palliative care
- Primary mental health care
- Access to obstetrical care and newborn care
- Service co-ordination, where possible
- Episodic care
- Access to hospital care and co-ordination where possible
- Patient education and preventive health care
- Appropriate periodic health assessments
- After hour telephone response, triage and access to a PCN Physician or an Affiliated Physician where appropriate

3. Enrolment

Patients who are covered by the provincial health insurance plan, reside in the PCN area and are not resident in a Long Term Care Facility (such as a Nursing Home or Home for the Aged) are eligible for enrolment. Enrolled members may receive services from any of the PCN physicians or affiliated physicians. Enrolment is optional. If a patient chooses to enrol, he or she must enrol with a specific physician, although when necessary he or she may receive services from any physician within the network.

The contracts establish a maximum roster target (Maximum Enrolment), which is comprised of the sum of:

- The number of full-time PCN physicians at that time multiplied by 2,200
- The number of full-time extended class registered nurses working for the PCN at that time multiplied by 800
- Any family increase (i.e. family members of an enrolled person can also enrol)

If a physician has contracted for more than 2,200 patients, the maximum enrolment for the PCN may be increased temporarily. However, if the actual number of enrolled patients decreases after one year of the signing of the contract, the maximum enrolment cap is reduced by the amount of this decrease (except where the actual number of enrolled patients falls below 2500, but is more than 2200, then the maximum enrolment is deemed to be 2500, until the actual number of enrolled patients falls below 2200).

Under no circumstances can the sum of the enrolment limits of all the PCN Physicians exceed the maximum enrolment determined above.

In addition, each non full-time PCN physician may enrol up to 2,200 patients.

A different process applies to former Health Service Organization (HSO) members. Each PCN Physician who was an HSO physician prior to the effective date of the contract shall offer the opportunity to become an enrolled member to:

(a) At least one-third of the number of his or her roster members by the date four months after the effective date;
(b) At least two-thirds of the number of his or her roster members by the date eight months after the effective date; and
(c) One hundred percent (100%) of the number of his or her roster members by the date twelve months after the effective date.

Note that the above only applies to those sites that are paid through the global capitation payment method. The other sites which are paid through reformed fee for service do not have roster limits.

Physicians may "un-enrol" an enrolled patient if the patient does not fulfill the obligations of the Patient - Physician Enrolment Agreement. Prior to doing so, the PCN physician must notify the patient of the reasons for their removal from the enrolment and provide them with an opportunity to respond.

In addition, an enrolled member ceases to be an enrolled member if the PCN Physician with whom the person was enrolled leaves the PCN, or if the person:

(1) Dies
(2) Becomes an uninsured person
(3) Has moved from the PCN area
(4) communicates in writing to the PCN or a person designated by the Minister, that he or she no longer wishes to be an enrolled member of the PCN
(5) Becomes an enrolled member of another PCN Physician
(6) Becomes an enrolled member of an alternatively funded enrolled General Practitioner service
(7) Is removed by the PCN from enrolment
(8) Becomes a resident of a Long Term Care Facility
(9) Is incarcerated in a provincial correctional institution
(10) Is granted a Minister-approved extended absence

4. Site Implementation Activity Funding

The Ministry provides funding to enable the PCN to carry out its implementation activities. Implementation activities are listed in Schedule 2 of the PCN contract and include enrolment activities and implementation of the computer systems and clinical management systems. PCNs were required to submit a budget, which included salaries of coordinators and office assistants, required to carry out their activities.

5. Termination

The contract is in force for three years from the effective date unless amended or terminated. Either party can terminate the agreement by providing 60 days written notice. In addition, the Minister may amend or terminate without liability or penalty all or part of the Primary Care Program of the Ministry, at any time and for any reason.

6. Evaluation

The PCN, the PCN physicians and all affiliated physicians shall participate in evaluation and monitoring activities undertaken by the Minister or persons designated by the Minister, following appropriate consultation and provided that the evaluation and monitoring activities do not unreasonably disrupt the PCN or the PCN physicians' practices. The PCN agrees that the results of any evaluations of the PCN physicians or affiliated physicians or the Primary Care program of the Ministry may be published, excluding any personal information about any PCN physicians and affiliated physicians or enrolled member.

7. Information Technology

The PCN contracts set out the IT funding formula. Some items are 100% Ministry funded while others are cost-shared one-third by the PCN and two-thirds by the Ministry. The Ministry provides funding for management consultants to assess IT needs and provide advice on the acquisition of IT systems.

The general components and assumptions are as follows:

- The Ministry funds 100% of installation of cabling and dedicated line charges for the three-year initial phase
- Future software costs or additional functionality that may be required due to legislative changes are to be cost-shared one-third by the PCN / two-thirds by the MOHLTC
- The cost of any value-added software or hardware will be the responsibility of the PCN

In some of the later agreements such as those signed in 2000, the Ministry agreed that rather than paying for dedicated line charges, it would provide a Wide Area Network connection at no cost to the PCN. The PCNs must also purchase a clinical management system software package.

Section 2.4 Remuneration

Under the capitation model, physicians practising in a PCN obtain revenue for their work in the PCN through three sources:

i) Payment for capitated services provided to enrolled patients
   - Physicians are paid for capitated services provided to patients enrolled in the PCN.

ii) Payment for excluded services for all enrolled patients
   - Physicians are paid for providing "excluded services." Excluded services are services that are not included in the capitation rate such as emergency services, obstetrics and surgical assists. These services, on average, represent about 20% of the service historically performed by family physicians.
   -

iii) Payments for non-enrolled patients
   - Physicians are paid for included services provided to non-enrolled patients. As enrolment is voluntary, those patients who choose not to enrol can still be seen and payment will be rendered on a fee for service basis. There is a $30,000 per doctor per year maximum. This maximum can be increased on request for special circumstances. Also the maximum can be combined and pooled among all the doctors in a PCN.

Physicians practising in a PCN pilot can be paid through one of two payment mechanisms:

a) Global Capitation Payment

Under the global capitation payment mechanism, from the date that the PCN becomes active to bill, the physician shall be paid for each enrolled patient, an amount equal to the daily capitation rate for that enrolled patient's age and sex category (reduced by a fixed percentage for outside use, for each day that the person is enrolled). Global capitation rates are calculated based on the same fee codes used under reformed fee-for-service. These payments are received on a monthly basis. The payments are received regardless of the amount and type of services the physicians have provided to their patients during that month.

It is important to note that the amount paid is reduced by a percentage known as "outside use." Outside use is defined as the capitated services provided to rostered patients, which are billed to OHIP by physicians who are not PCN physicians. In other words, when patients rostered to a PCN physician seek services outside the PCN, the physician's capitation payment is reduced by a fixed percentage, which ranges from 3 to 5%. Each PCN has negotiated this percentage in their contract. There is an exception where certain services are provided and the patient was referred to the outside physician by the PCN physician.

The following example demonstrates the payment structure that would be set out in an Appendix to the PCN contract. For the age range of 35 to 39 for a male, the capitation rate would be $102.92. With an outside use reduction of 4%, this value decreases to $98.80. The daily capitation rate is one 365th of this amount. Thus a physician with an enrolment of 2200 patients who stayed with him or her for 365 days and who were all males in the age range of 35 to 39 could expect to earn approximately $217,000 from capitated payments alone. This amount decreases if patients leave the network. This amount increases if the patient population is either older or younger (as the capitation rates are higher in the older and younger age groups).

Physicians under this system must "shadow bill" for each encounter. In other words, they must submit a Schedule of Benefits fee code for each service rendered to the patient. Where the patient is an enrolled patient, and the service is an included service (i.e. within the basket of services), the claim is considered shadow billed where there is no pay out but the encounter information is noted. If the service is for an excluded service or for a non-enrolled patient, a fee- for-service payment is made. Note, however, that there is an annual maximum of $30,000 per PCN physician for fee-for-service billings for non-enrolled patients. This cap does not take effect until 12 months after the date the PCN became active to bill, except for HSO physicians.

When patients enrol with one physician in the PCN and are cared for by another physician in the PCN, there will be no remuneration for such visits on a fee-for-service basis.

Physicians participating in this system will also be able to bill three new fee codes. These physicians can bill for the preventive care management fee, the preventive care bonus fee and the targeted medical education fee, but will be required to provide encounter data (shadow bill) for the home care supervision fee and the interview and case conference codes.

b) Reformed Fee-for-Service

Under reformed fee-for-service, an annual billing maximum called a Benchmark Threshold (BMT) is established for each physician in the PCN or a group BMT is established. The BMT is calculated based on the age/sex adjusted capitation rate for patients enrolled. This rate covers a set of primary care billing codes.

For the initial pilot sites, there has been no enforcement of the BMT for 18 months after signing their contract. PCNs have had the option to choose between two sets of primary care codes and the associated capitation rates. If patients enrolled with one physician in the PCN are cared for by another physician in the PCN, these billings will be attributed to the BMT of the physician to whom the patient is enrolled. Thus unlike with the global capitation method, there are "switching costs" under reformed fee-for-service.

Physicians participating in Reformed Fee-for-Service are also able to bill five new fee codes. These codes include a preventive care management fee, a preventive care bonus fee, a home care supervision fee, an interview and case conference fee and a targeted medical education fee.

As the name would suggest, this model most closely mirrors the current fee-for-service system in that payment is directly related to services provided, subject to the BMT cap.

Section 2.5 Enrolment (Rostering)

As discussed above, all patients are given the option of enrolling (i.e. rostering) with a physician who has joined a PCN network. If the patient chooses not to enrol, he or she can still be treated by that physician but payment will be rendered on a fee-for-service basis and will be subject to the $30,000 cap per physician.

The "Patient Agreement to Enrol with a Family Doctor" is an agreement between the patient and the PCN physician.

Under the terms of the agreement, the physician agrees to:

- Be the patient's health care provider, address their primary care needs and coordinate their care with other health providers
- Provide patients with access to a health care provider 24 hours per day

The patient agrees to:

- Contact the physician or the PCN to which the physician belongs first whenever he or she needs primary care, except when in an emergency or away from home

Under the terms of the agreement, the patient cannot enrol with another physician for six weeks and cannot change physicians with whom they are enrolled more than twice per year. The patient can decide to stop being enrolled ay any time.

In addition, patients who enrol have the option of signing a consent form entitled "Consent to Release Personal Health Information." The patient consents to let his or her physician share records with other providers and exchange contact information with the Ministry. The consent form is to be returned directly to the Ministry of Health and Long Term Care. This consent form permits the Ministry to release the patient's personal health information to the physician with whom the patient has enrolled. The type of information released includes information regarding immunizations, use of prescription medication and information regarding use of OHIP-insured primary care services received from a physician outside of the PCN.

Section 2.6 Teletriage

Under the terms of the agreement all PCN sites are to arrange for the provision of a telephone health advisory. The PCNs worked with the OMA to develop a centralized approach to this process. The OMA joined forces with the Ontario Hospital Association and created the Community Telephone Health Management Company (CTHM), a corporation without share capital incorporated under the *Canada Corporations Act*.

The objects of CTHM as set out in its application for incorporation are:

- To promote and manage the provision of telephone health information services responsive to the needs of the community
- To ensure the provision of the highest quality integrated and cost-effective telephone health information systems to those requiring such service
- To facilitate the implementation of a system of telephone health information services by working with those in the community using and having an interest in the provision of such services
- To assist in the development of policies to implement efficient and responsive telephone health information services
- To assess and measure the impact of telephone health information services on health care and hospital utilization
- To develop standards of performance measurements and other criteria to assess the qualitative and quantitative aspects of telephone health information services
- To promote the development and implementation of public/private partnerships in the provision of telephone health information services
- To develop strategies for the integration of telephone health information services with hospitals and community-focussed care services

The CTHM issued a Request For Proposal and awarded the contract for the provision of the Telephone Health Advisory Service to MedCan Health Management Inc. MedCan Health Management Inc., a Canadian company, partnered with Colorado-based iMcKesson to provide this service. Signatories to this contract are the CTHM, MedCan and its partner iMcKesson, the MOHLTC and the pilot PCNs.

Under the terms of the contract, CTHM was appointed as agent for the MOHLTC and the PCNs. The parties agreed that MedCan would service a set call volume for a set fee. Schedule A to the contract outlined the general requirements and service standards for the provision of services by MedCan. The service is called the ON-Call Healthline. All PCNs have access to this service. When patients call their PCN physician after hours, they are advised to call the teletriage line. Teletriage provides advice and information. With patient consent, the patient's PCN physician receives a faxed copy of the encounter outlining the advice provided.

The following outlines some of the service standards:

- Services to be provided from 5:00 pm to 9:00 am, Monday to Friday and 24 hours on Saturday, Sunday and statutory holidays
- Employ experienced and licensed registered nurses
- Ensure that on a monthly basis not less than 95% of all incoming calls receive a response within 60 seconds either by a live voice or a voice message
- Measure caller satisfaction every 6 months to ensure that caller satisfaction with the services is 90% or greater
- Ensure that the monthly percentage of non-serviced calls does not exceed 5% of the total of incoming calls (call-abandonment rate)
- Ensure that there is an outbound call responding to messaged calls within 30 minutes of the initial call
- Facilitate the most appropriate use of self-care, primary care, community services or emergency services by rostered patients
- Communicate with the rostered patients' PCN physician as permitted by law.

The scope of the services is to include the triage and advice aspects of a telephone health advisory service. A computerized decision support model is used to guide clinical personnel in handling calls. The Schedule states that MedCan personnel will evaluate the caller's symptoms and provide immediate and practical advice and triage to help the caller choose the best course of action. Diagnostic assessment shall not be provided.

A key service standard is a standard referred to as "physician integration." MedCan will provide start-up education programs to PCN physicians. MedCan must establish a routine method of faxing or e-mailing encounter information to the PCN physician. Where a PCN has designated an on-call physician, the caller may be directed to that physician under specified circumstances.

Section 2.7 Nurse Practitioners

There are currently seven nurse practitioners working within the PCNs that are paid through Ministry funded positions. Under the terms of the funding agreement, the funds for these positions are paid directly to the PCN in accordance with a schedule of instalments. The PCN is responsible for all statutory deductions. The funding agreement is for a series of consecutive one-year terms.

Under the agreement, the nurse practitioner and the PCN shall jointly develop a written description of the duties and responsibilities of the nurse practitioner.

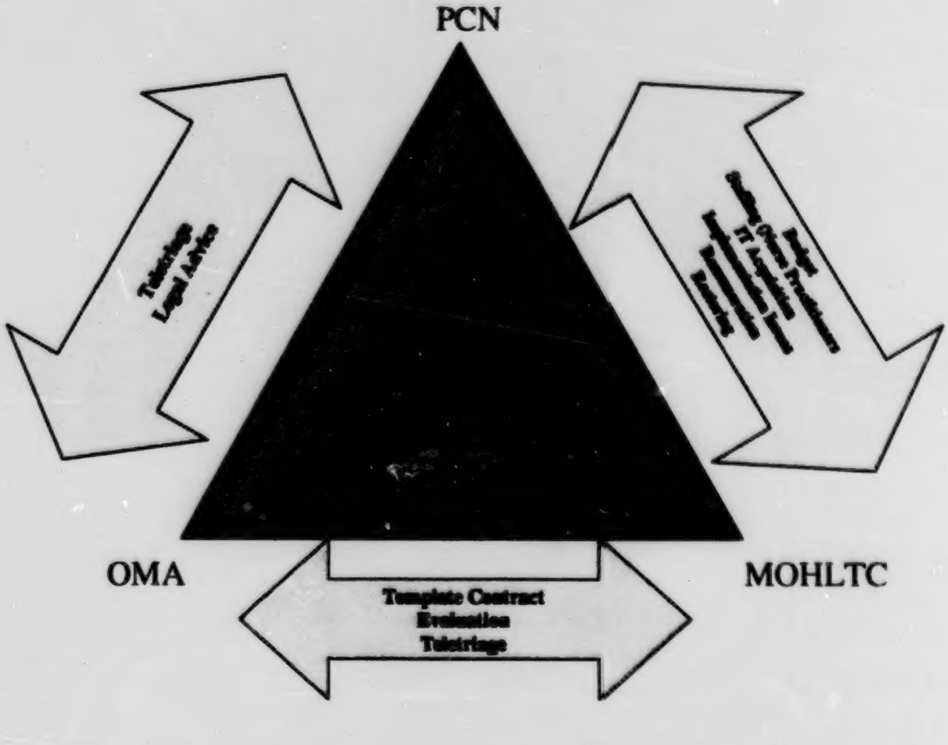
The Ministry reserves the right to cancel the funding if the agreement is not adhered to. The PCN must provide the Ministry with an annual evaluation report. The evaluation report must provide information such as the number of patients seen, the number of consultations and referrals to family physicians and specialists, the number of referrals for tests and innovative programs introduced.

In addition to these positions, some PCNs that converted from HSOs had existing nurse practitioner positions. These are funded through the Alternate Payment pool.

Section 2.8 Overview of Interrelationship of Key Stakeholders

A great deal of planning, coordination and negotiation are required to bring all of the elements of the reform together into a workable model. This is accomplished through the efforts of three key stakeholders- the MOHLTC, the OMA and the PCNs.

The following graphic depicts the roles and interrelationships of each of the three primary stakeholders in implementation of primary care reform. The diagram depicts how some elements such as the evaluation of PCR and the template agreement were centrally negotiated between the OMA and the MOHLTC while with other elements, the sites dealt directly with the Ministry.



The Ministry of Health and Long-Term Care has ultimate responsibility for primary care reform. An understanding of their role and how they are organized to implement the reform is an important part of the context of this evaluation.

The Ministry of Health and Long-Term Care is organized into a number of divisions, each one headed by an Assistant Deputy Minister. Responsibility for the implementation of Primary Care Reform rests with the Health Services Division.

The Primary Care Reform Project is based in Kingston although staff travels frequently between Kingston and Toronto. Leadership is provided by a Director who is supported by several staff. Staff working directly with the pilots have responsibility for working with specific PCNs. There are also staff with specialized roles (e.g. information technology).

The role of the Primary Care Reform Project staff during the start-up phase of the PCN pilots includes:

- Contract negotiations
- Approval of budgets for administration, enrolment and information technology
- Ensuring that PCNs have the required materials (e.g. patient enrolment forms)
- Responding to inquiries from the PCNs

Ministry staff continue to liaise with PCNs as required on an ongoing basis. The Ministry also provides PCNs with several regular reports on enrolment, service utilization and payment.

Ministry staff also communicates with potential new PCNs. They provide information and do presentations to interested groups of physicians.

The Primary Care Reform Project has identified a need for specific research in a number of areas to inform primary care reform implementation. The following studies have been commissioned:

- A study on to assess the effectiveness of various rostering methods
- A study on physician IT acquisition
- Research on payment mechanisms and capitation formulas
- Development of performance measures for family practices.

The Health Services Division also has responsibility for handling all provider payments. The Alternate Payment Programs Administration branch is responsible for developing and managing the operation and administration of arrangements with alternatively funded health service providers. This Branch manages payments to PCN physicians.

To ensure objectivity, the evaluation of the primary care reform pilots is being overseen by the Strategic Health Policy branch under the Integrated Policy and Planning Division.

The Ministry also has its own internal mechanisms for measuring the effectiveness of primary care reform. For example, the Minister's Annual Business Plan includes specific targets for primary care reform. At the government level, the Provincial Auditor conducted a review of primary care reform in 2000.

It is important to note that primary care reform is more than just one ministry's initiative. It is a government priority. For example, the Premier made a recent announcement about the Ontario Family Health Network. As described earlier in this report, the Ontario Family Health Network is a new agency that has been established specifically to implement primary care reform.

Section 2.9 Health Services Organizations

This report makes several references to Health Services Organization (HSOs) because many of the physicians in the pilot used to practice in HSOs prior to PCR. By way of background, the following is a brief description of HSOs in Ontario.

The HSO Program was initiated in the early 1970s as an alternative payment program for primary care practices. HSOs are funded on a capitation basis to provide primary health care services to roster members. There are two types of HSOs – physician sponsored and non-profit with the vast majority (58 of 63) being physician sponsored. The main difference between the two types is the administrative structure.

HSOs operate under the terms of a contract with the Minister. Each HSO has its own contract and all contracts are based on a template for their respective structure.

The Ministry of Health and Long Term Care placed a moratorium on new HSOs in 1996 when the new HSO agreement was negotiated/signed. Roster limits were frozen at 5% over the roster size, as it existed on April 1, 1995 provided that the roster size did not exceed 2,500 per 1.0 FTE physician sponsor.

As of November 2000 there were 63 HSOs with 212 physicians operating in Ontario serving a population of over 310,000 enrolled patients. Last year, 14 HSOs in the Hamilton-Wentworth area chose to join Primary Care Networks (PCN). In two instances not all of the physicians in an HSO converted to PCR and in these cases the HSOs have remained with modified billing and roster limits.

The numbers of physicians in an HSO ranges between one and 15 with over 70% of HSOs consisting of three physicians or less. HSOs are primarily found in more urban areas with nearly 70% located either in the Hamilton-Wentworth, Kitchener-Waterloo or Toronto areas. Other locations include Burlington, London, Ottawa, Brockville, Niagara Falls and Guelph.

i) Rostering

HSOs are paid a monthly amount based on the number of patients on their roster for that month. Patients wishing to belong to an HSO must sign a roster enrolment form. The number of patients an HSO may have on its roster is limited according to the terms of the contract the HSO signs with the Minister.

ii) Funding for HSOs

The following outlines some of the key payment mechanisms for HSOs.

- ***Capitation***: The capitation rate is the amount paid per patient (age and gender adjusted) to the HSO for providing patient care.
- ***Chargebacks***: If a roster member receives services from a family physician outside the HSO, the HSO is charged 50% of the cost of the service. This is called a chargeback or negation and is subtracted from the monthly capitation payment.
- ***Fee-For-Service to Roster Members***: Certain services are not included within the HSO capitation rate. HSO physicians may bill OHIP when providing these services to their members. These services include anesthesia, labour and delivery, surgical assists and physiotherapy.
- ***Fee-For-Service to Non-Roster Members***: Each HSO physician may bill OHIP up to an average of $30,000 per year for services rendered to non-roster members.
- ***Program Grants***: Some HSOs receive program grant funding (directly or indirectly) for enhanced primary care services provided by non-physician health care workers. Examples of these programs include nutrition counselling, mental health services, and health promotion programs.

iii) Difference Between HSO and PCN

HSOs have many similarities to PCNs, such as population based funding but there are significant differences in the details of the payments, incentives, enrolment and organization. A comparison of HSOs and PCNs is included in **Appendix C**.

Section 2.10 Summary

The intention of this section was to outline the main elements of the PCN contract, the remuneration mechanisms to which PCNs are subject and other important elements of operation such as teletriage and nurse practitioners. An understanding of this framework is essential to an understanding of implementation and start-up activities for these PCNs. These elements are common across all PCNs. In the following section, we will examine in greater detail demographics and statistical information pertinent to individual PCNs.

SECTION 3: OVERVIEW OF PRIMARY CARE PILOT SITES

Section 3.1 Site Catchment Area Demographic Profiles

The purpose of this section is to highlight the key demographics of each of the primary care pilot sites. A more detailed overview of the catchment area demographics is provided in **Appendix D**. The Appendix includes statistical information on:

- Population size and forecasted growth
- Resident demographics such as age groups, gender distribution, income levels, educational levels, languages spoken and immigration information
- Birth rates
- Active physicians in the catchment area by specialty of practice
- Health services available in the catchment area (e.g. hospitals, CCACs)

The literature supports the notion that an understanding of the "practice population" will enhance the delivery of services. For example, a report by the Ontario College of Family Physicians states:

> *This list of added services and the time devoted to each of the PCCCAR[3] services is dependent upon the infrastructure of the local healthcare setting and the expressed needs of the practice population. As an example, family doctors in a rural setting may need to perform minor surgeries to reduce travel time for patients due to the distance of the community from the nearest hospital. An inner-city practice may need to develop a strong focus on mental health and addiction services to meet the needs of the homeless population.*[4]

The Ministry of Health and Long Term Care (MOHLTC) is committed to primary care reform across the province. This evaluation will assess and compare the experiences of each of the pilot sites and attempt to determine the generalizability of the findings to the rest of the province. Thus, it is important to understand the situation in each site and how the sites differ from each other and the Ontario norms. Therefore, statistics are presented for Ontario as a whole and for each pilot site.

The source of the data used in this section and in **Appendix D** is Statistics Canada, 1999 Population Estimates by Census Division. Most statistics are reported for the year 1999, although some rates are calculated based on 1996 census data. It is important to note that the statistics could only be provided at the *census division* level and thus in some cases may account for a larger catchment area than that of the site alone.

---

[3] PCCCAR refers to the 1996 report of the Subcommittee on Primary Care of the Provincial Coordinating Committee on Community and Academic Health Science Centre Relations, which defined the basket of services that should be provided in primary care settings.

[4] "Implementation Strategies: Collaboration in Primary Care – Family Doctors & Nurse Practitioners Delivering Shared Care". Ontario College of Family Physicians, May 18, 2000, page 7.

The table below presents the populations of the site catchment areas and the average growth rates. The population of the catchment areas for the pilot sites ranges from 41,454 in Parry Sound to 763,942 in Ottawa.

Population Estimates

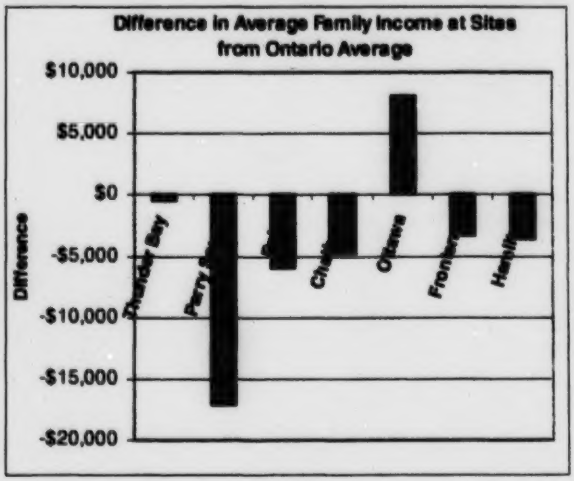
[illegible]		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
1999 Population Estimate	11,513,808	159,272	41,454	125,212	112,576	763,942	138,344	493,833
% Change 91-99	12.40%	0.30%	7.30%	11.50%	2.30%	11.20%	6.70%	9.30%
Avg. Annual Growth Rate	1.80%	0.00%	1.00%	1.60%	0.30%	1.60%	0.90%	1.20%
1999 Male	5,680,916	79,634	20,691	61,488	55,424	376,088	68,201	242,868
1999 Female	5,832,892	79,638	20,763	63,724	57,152	387,854	70,143	250,965

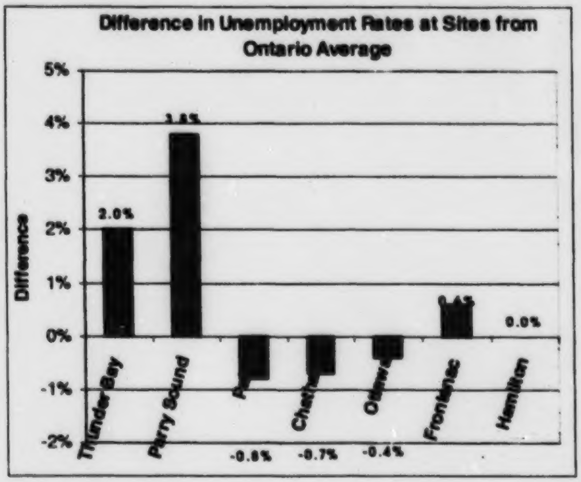
The following table shows income and employment information across the sites. The average family income at the sites ranges from $42,702 to $67,871, and the unemployment rate ranges from 8.3% to 12.9%. Unlike the provincial average, in four out of the seven census divisions, females have a lower unemployment rate than males.

Income and Employment

[illegible]		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Income								
	59,830	59,375	42,702	53,893	54,999	67,871	56,450	56,223
Unemployment Rate								
Per Capita (over 15)	9.1	11.1	12.9	8.3	8.4	8.7	9.7	9.1
Males (over 15)	8.7	11.5	14.3	7.2	7.9	8.8	9.8	8.9
Females (over 15)	9.6	10.5	11.1	9.5	9	8.7	9.5	9.3

The average family income in all the areas is lower than the provincial average except for Ottawa-Carleton. Unemployment rates are considerably higher in two of the regions: Thunder Bay and Parry Sound. Cross site comparisons are displayed in the graphs below.





The level of education varies between sites. The proportion of the population with less than a grade nine education ranges from 6.1% to 12.8%. The proportion with post secondary education ranges from 42.5% to 63.8%.

Education Levels

[illegible]	[illegible]	[illegible]	[illegible]	Paris	Chatham	Ottawa	Kingston	Hamilton
[illegible]	[illegible]	[illegible]	[illegible]	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Level of Schooling								
Less than Grade 9	10	10.9	12.8	10	12.3	6.1	7.3	11.5
Without secondary school graduation certificate	23	26.1	29.8	29.9	28.5	16.7	21.8	25
With secondary school graduation certificate	14.6	13.3	14.8	14.7	16.4	13.4	13.4	14.3
Trades certificate or diploma	3.5	4.9	5.7	4.2	4.1	2.4	3.5	4
Other non-university education only	24.5	25.5	24.1	26.4	25.6	22.8	26.1	25.6
University	24.3	19.3	12.7	14.8	13.1	38.6	27.9	19.6

The table below presents the populations of the site catchment areas and the average growth rates. The population of the catchment areas for the pilot sites ranges from 41,454 in Parry Sound to 763,942 in Ottawa.

Population Estimates

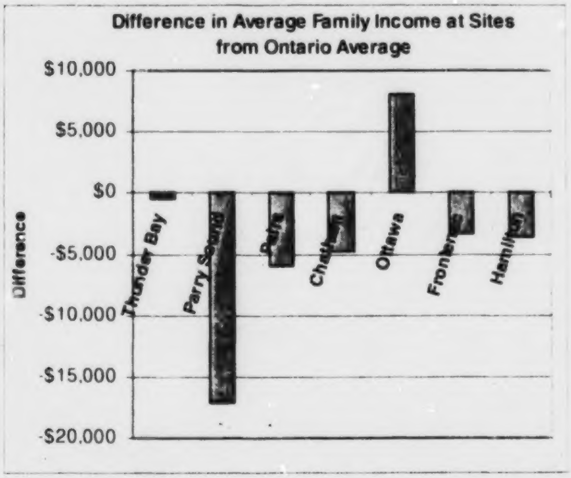
PCN Site		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
Census Division	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
1999 Population Estimate	11,513,808	159,272	41,454	125,212	112,576	763,942	138,344	493,833
% Change 91-99	12.40%	0.30%	7.30%	11.50%	2.30%	11.20%	6.70%	9.30%
Avg. Annual Growth Rate	1.80%	0.00%	1.00%	1.60%	0.30%	1.60%	0.90%	1.20%
1999 Male	5,680,916	79,634	20,691	61,488	55,424	376,088	68,201	242,868
1999 Female	5,832,892	79,638	20,763	63,724	57,152	387,854	70,143	250,965

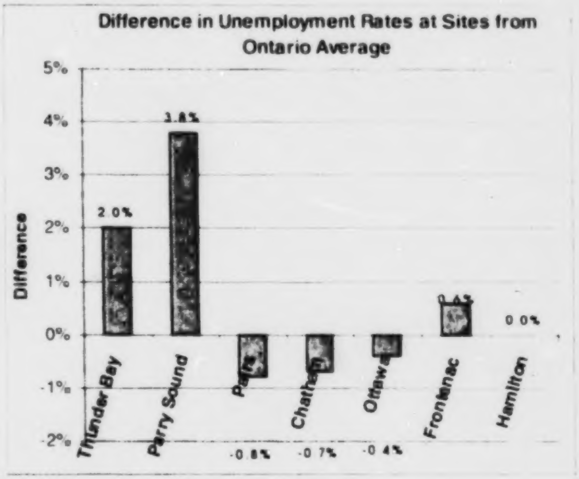
The following table shows income and employment information across the sites. The average family income at the sites ranges from $42,702 to $67,871, and the unemployment rate ranges from 8.3% to 12.9%. Unlike the provincial average, in four out of the seven census divisions, females have a lower unemployment rate than males.

Income and Employment

PCN Site		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
Census Division	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Income								
	59,830	59,375	42,702	53,893	54,999	67,871	56,450	56,223
Unemployment Rate								
Per Capita (over 15)	9.1	11.1	12.9	8.3	8.4	8.7	9.7	9.1
Males (over 15)	8.7	11.5	14.3	7.2	7.9	8.8	9.8	8.9
Females (over 15)	9.6	10.5	11.1	9.5	9	8.7	9.5	9.3

The average family income in all the areas is lower than the provincial average except for Ottawa-Carleton. Unemployment rates are considerably higher in two of the regions: Thunder Bay and Parry Sound. Cross site comparisons are displayed in the graphs below.

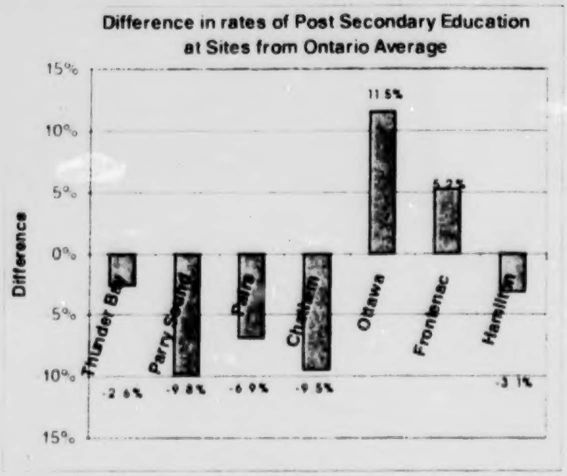


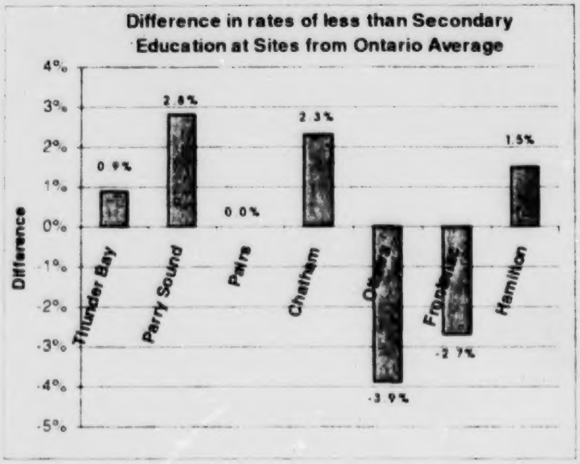


The level of education varies between sites. The proportion of the population with less than a grade nine education ranges from 6.1% to 12.8%. The proportion with post secondary education ranges from 42.5% to 63.8%.

Education Levels

PCN Site		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
Census Division	**Ontario**	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton Wentworth
Level of Schooling								
Less than Grade 9	10	10.9	12.8	10	12.3	6.1	7.3	11.5
Without secondary school graduation certificate	23	26.1	29.8	29.9	28.5	16.7	21.8	25
With secondary school graduation certificate	14.6	13.3	14.8	14.7	16.4	13.4	13.4	14.3
Trades certificate or diploma	3.5	4.9	5.7	4.2	4.1	2.4	3.5	4
Other non-university education only	24.5	25.5	24.1	26.4	25.6	22.8	26.1	25.6
University	24.3	19.3	12.7	14.8	13.1	38.6	27.9	19.6





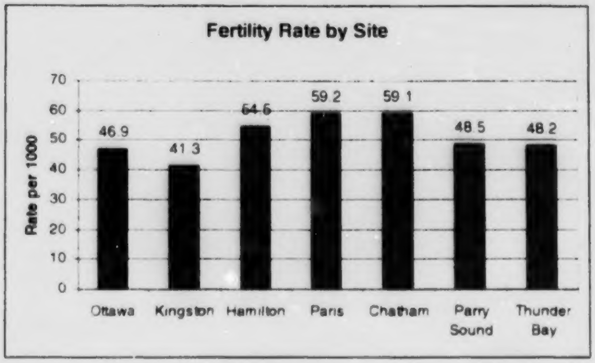
Most of the sites have lower rates of post secondary education among the population and a greater proportion of residents with less than a secondary education compared to the provincial average with the exceptions of Ottawa and Frontenac.

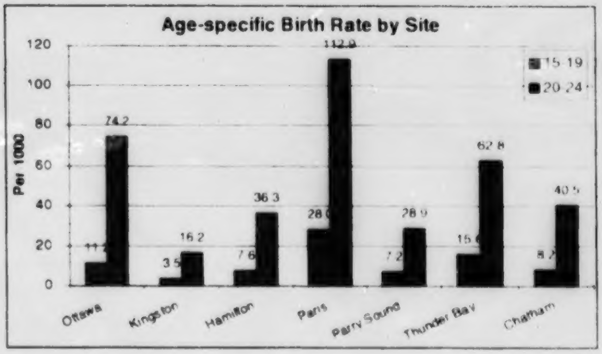
The actual number of births ranges from 432 to 9.453 among sites. The fertility rate (per 1000 females aged 15-49) ranges from 41.3 to 59.2 per 1000. The child mortality rate (per 10.000 children age 0-4) ranges from 9.2 to 18.0 per 10.000.

Vital Statistics

PCN Site		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
Census Division	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Vital Statistics								
Births 1997	152,764	1,997	432	1,722	1,629	9,453	1,490	6,619
Fertility Rate (per 1000 Females 15-49)	**43.8	48.2	48.5	59.2	59.1	46.9	41.3	54.5
Deaths 1997	81,170	1,382	390	1,107	1,116	4,541	1,143	4,123
Crude Mortality Rate (per 10,000)**		72.8	82.5	79.3	86.1	52.5	70.6	73.5
Child Mortality Rate (per 10,000 0-4 yrs)		11.8	9.2	14.0	14.1	13.3	18.0	13.6
Natural Increase	71,594	615	42	615	513	4,912	347	2,496
*calculated for 1998 ** not age adjusted								

The lowest fertility rate is in Kingston (Frontenac) and the highest is in Paris (Brant). Teen pregnancy is highest in Brant followed by Thunder Bay. The fertility rate among women aged 20-24 is substantially higher in Brant than the other sites. Ottawa and Thunder Bay also have relatively high fertility rates in these age groups.

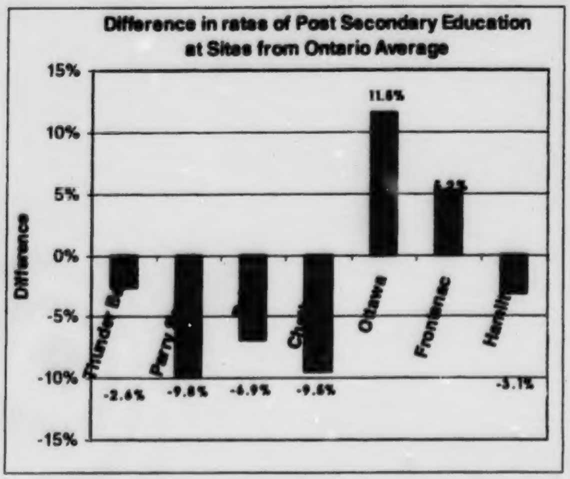


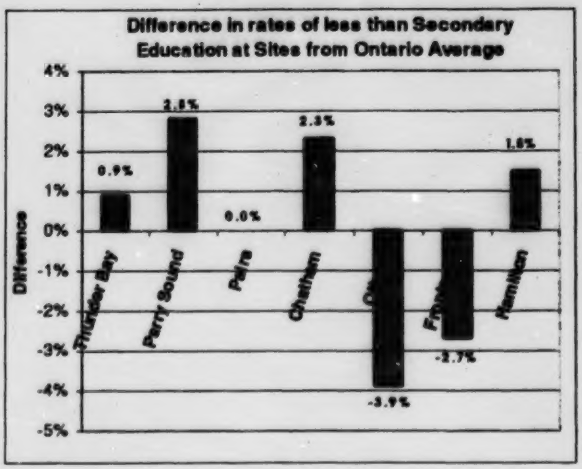


The following table shows the marital status of the site populations. Parry Sound has the highest proportion of its population that is married; Kingston has the lowest. The proportion of those over the legal age for marriage that have never been married ranges from 23% to 33%. The proportion of those widowed ranges from 5.7% in Ottawa-Carleton to 8.2% in Parry Sound.

Marital Status

PCN Site		**Thunder Bay**	**Parry Sound**	**Paris**	**Chatham**	**Ottawa**	**Kingston**	**Hamilton**
Census Division	**Ontario**	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Never married	29.5	30.8	23.4	26.4	26.9	33.2	31.3	28.8
Legally married	54.3	52.2	57.8	55.3	55.1	50.5	51	53.6
Separated	3.4	3.7	3.6	3.9	3.3	3.6	3.6	3.1
Divorced	6.3	6.3	7	6.8	6.6	7	7.4	7.2
Widowed	6.5	7.2	8.2	7.7	8.1	5.7	6.7	7.3





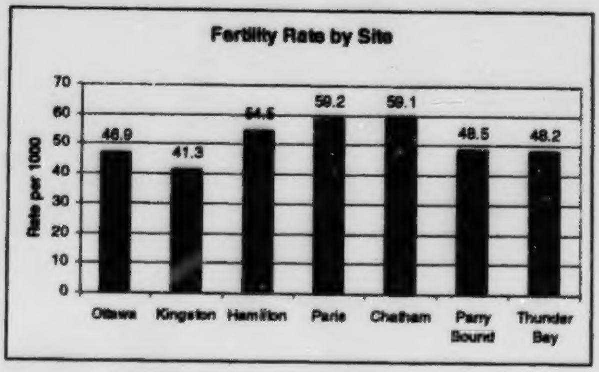
Most of the sites have lower rates of post secondary education among the population and a greater proportion of residents with less than a secondary education compared to the provincial average with the exceptions of Ottawa and Frontenac.

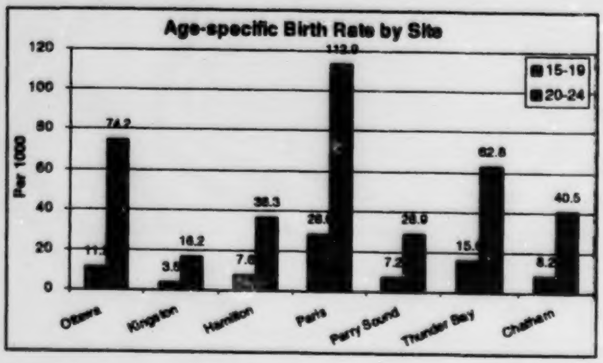
The actual number of births ranges from 432 to 9,453 among sites. The fertility rate (per 1000 females aged 15-49) ranges from 41.3 to 59.2 per 1000. The child mortality rate (per 10,000 children age 0-4) ranges from 9.2 to 18.0 per 10,000.

Vital Statistics

PCN Site	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Ottawa	Kingston	Hamilton
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Frontenac	Hamilton-Wentworth
Vital Statistics								
Births 1997	152,764	1,997	432	1,722	1,629	9,453	1,490	6,619
Fertility Rate (per 1000 Females 15-49)	**43.6	48.2	48.5	59.2	59.1	46.9	41.3	54.5
Deaths 1997	81,170	1,382	390	1,107	1,116	4,541	1,143	4,123
Crude Mortality Rate (per 10,000)**		72.8	82.5	79.3	86.1	52.5	70.6	73.5
Child Mortality Rate (per 10,000 0-4 yrs)		11.8	9.2	14.0	14.1	13.3	18.0	13.6
Natural Increase	71,594	615	42	615	513	4,912	347	2,496
*calculated for 1998 ** not age adjusted								

The lowest fertility rate is in Kingston (Frontenac) and the highest is in Paris (Brant). Teen pregnancy is highest in Brant followed by Thunder Bay. The fertility rate among women aged 20-24 is substantially higher in Brant than the other sites. Ottawa and Thunder Bay also have relatively high fertility rates in these age groups.





The following table shows the marital status of the site populations. Parry Sound has the highest proportion of its population that is married; Kingston has the lowest. The proportion of those over the legal age for marriage that have never been married ranges from 23% to 33%. The proportion of those widowed ranges from 5.7% in Ottawa-Carleton to 8.2% in Parry Sound.

Marital Status

PCN Site		Thunder Bay	Parry Sound	Paris	Chatham	Ottawa	Kingston	Hamilton
Census Division	Ontario	Thunder Bay	Parry Sound	Brant	Kent	Ottawa-Carleton	Frontenac	Hamilton-Wentworth
Never married	29.5	30.8	23.4	26.4	26.9	33.2	31.3	28.8
Legally married	54.3	52.2	57.8	55.3	55.1	50.5	51	53.6
Separated	3.4	3.7	3.6	3.9	3.3	3.6	3.6	3.1
Divorced	6.3	6.3	7	6.8	6.6	7	7.4	7.2
Widowed	6.5	7.2	8.2	7.7	8.1	5.7	6.7	7.3

Section 3.2 Primary Care Network Overview

This section of the report provides an overview of each PCN. The information presented in this section will help to answer the following questions:

- When did the PCN get started?
- How many physicians are involved?
- How many offices are included in the PCN?
- How many patients are currently enrolled?
- How does current enrolment compare to the estimated enrolment target?
- What is the ratio of physicians to patients?

This section provides information on each PCN. In the next section, data is compared across the different PCNs in the province.

The statistics used in this section were taken from Ministry reports including the PCN Enrolment status report as of March 2, 2001.

It is important to define some of the terms used in these reports:

Rostering date:	The date the PCN signed their PCN agreement.
Active to bill date:	The date the PCN started using the PCR payment system.
Estimated Enrolment[5]:	An estimate of enrolment as written into the PCN's contract with the Ministry
Percent of Estimate:	Actual enrolment divided by the estimated enrolment
Physician to Patient Ratio:	Number of physicians in the PCN divided by the number of actual enrolled patients
Processed Enrolments:	The number of enrolments processed as of March 2, 2001

a) Chatham

The Chatham PCN signed their PCN agreement on December 24, 1999. The active to bill date was December 1, 2000. There are currently ten physicians in the network distributed over eight office locations. The estimated enrolment for this network was 25,257 patients. The actual number of processed enrolments is 14,950 or 59.2% of the estimated enrolment. The current physician to patient ratio for this network is one physician for every 1,495 enrolled patients. The Chatham PCN is using the reformed fee-for-service payment mechanism.

---

[5] This definition came from the PCR Enrolment Status Report. However, many of the estimated provided are not the same estimates actually written into the PCN contract.

b) Hamilton

There are eight PCNs in the Hamilton area. Each PCN has a *network* leader and there is also an overall *site* leader for Hamilton. There are a total of 118 physicians involved in the Hamilton PCNs, representing 81% of the physicians in the provincial pilots. Many of the groups to get involved in the PCR pilots were former Health Service Organizations (HSOs). Information on each of the Hamilton networks is provided below:

Hamilton - Core

Hamilton - Core signed their PCN agreement on September 1, 1999 and was active to bill on December 1, 1999. There are 16 physicians in this network distributed over five offices. Of these 16 physicians, 69% are former HSO members. The estimated enrolment for this PCN was 27,483. The actual number of processed enrolments is 23,468, 85% of the target. The physician patient ratio is one physician for 1,467 patients. There is a nurse practitioner funded through PCR as part of this network.

Hamilton - Innovations

Hamilton - Innovations signed their PCN agreement on June 1, 1999 and active to bill on the same date. As of March 2, 2001 there were 21 physicians in this network, distributed over eight offices. Forty-eight percent of the physicians are former HSO members. The estimated enrolment was 33,563 and actual processed enrolment is 31,695; 94% of the estimate. The physician to patient ratio for this PCN is one physician for 1,509 patients.

Hamilton- Intramed

Hamilton - Intramed signed their PCN agreement on October 1, 1999 and active to bill on October 1, 1999. There are 13 physicians in this PCN distributed over 11 offices. Fifteen percent of the physicians are former HSO members. The estimated enrolment for the PCN was 27,934 and the actual number of processed enrolments was 27,003; 96.7% of the estimate. The physician to patient ratio for this PCN is one physician for 2,077 patients.

Hamilton - McMaster University

The Hamilton - McMaster PCN signed their PCN agreement on September 1, 2000 and active to bill on March 1, 2001. There are 17 physicians at this PCN distributed over two offices. Eighty-eight percent are former HSO members. The estimated enrolment was 19,515. The current number of processed enrolments is 7,313; 37.5% of the estimate. The physician to patient ratio for this PCN is one physician for 430 rostered patients.

Hamilton Community Health Centre

Hamilton Community Health Centre PCN signed their agreement on February 1, 2000 and was active to bill on February 1, 2000. There are eight physicians in this PCN. All of the physicians practice out of one office location. None of these physicians are former HSO members. The estimated enrolment was 17,000 patients while actual processed enrolment is 8,444; 49.7% of the estimate. The physician to patient ratio for this PCN is one physician to 1,056 patients.

Hamilton - Stoney Creek/Hamilton Mountain

The Hamilton Stoney Creek/Hamilton Mountain PCN signed their agreement on September 9, 1999 and active to bill on November 1, 1999. There are 16 physicians in the network distributed over 16 different offices; 19% are former HSO physicians. The estimated enrolment for this PCN was 45,705. Actual processed enrolment is 35,916; 78.6% of the estimate. The physician to patient ratio for this PCN is one physician to 2,245 patients.

Hamilton - Carlisle

The Hamilton - Carlisle PCN signed their agreement on April 1, 1999 and active to bill on the same date. There are six physicians in this network and they all practice out of the same office location; 83% of the physicians are former HSO members. The estimated enrolment was 9,647 and actual processed enrolment is 8028; 83.2% of the estimate. The physician to patient ratio is one physician to 1,338 patients.

Hamilton - Escarpment

The Hamilton - Escarpment PCN signed their agreement on September 1, 1999 and active to bill on October 1, 1999. There are 21 physicians in this network distributed over 12 offices. Twenty-four percent are former HSO members. The estimated enrolment for the PCN was 45,271 and the actual processed enrolment is 39,295; 86.8% of the estimate. The physician to patient ratio for this PCN is one physician for every 1,871 patients.

c) Kingston

The Kingston PCN signed their agreement on February 12, 1999 and active to bill on April 1, 2000. There are 10 physicians in this network. Physicians in the Kingston PCN practice out of five offices located in five rural towns: Verona, Sydenham, Sharbot Lake, Tamworth and Newburg. One physician in this network is a former HSO member. The estimated enrolment for this PCN was 19,704. Actual processed enrolment was 12,029, 61% of target. The physician to patient ratio is one physician for 1,203 patients. There are two nurse practitioners funded through PCR as part of this network.

d) Ottawa- West Carleton

This PCN signed its agreement in November 2000 and is expected to accept its first enrolled patient on April 1, 2001. Six physicians are part of this PCN. The six physicians will rotate between two office locations. Additional statistics are not yet available.

e) Paris- Primacare

The Paris Primacare PCN was rostered on February 12, 1999 and active to bill on December 15, 1999. There are seven physicians in this network distributed over five offices. There are no former HSO members in this PCN. The estimated enrolment was 9,237. Actual processed enrolment is 10,257 or 111% of the estimate. The physician to patient ratio for this PCN is one physician for 1,465. There is one nurse practitioner funded through PCR as part of this network (another nurse practitioner is paid for by the physicians themselves).

f) Parry Sound

Parry Sound signed their PCN agreement in late March, 2001.

g) Thunder Bay

This proposed PCN is not yet established.

Section 3.3 The Provincial Picture

The summary table below presents statistics for all of the PCNs and totals for the province. This section discusses the overall provincial experience and highlights similarities and differences in terms of some of the key features of the PCNs.

PCN Statistics as of March 2, 2001

Site	Network	Rostering Date	Active to Bill Date	# of Physicians	# of former HSO members	Estimated Enrolment	Number of Processed Enrolments	% of Estimated Enrolment Realized	Physician to Patient Ratio
Chatham	Chatham	2-Jun-1999	1-Dec-2000	10	0	25,257	14,950	59.2%	1,495
Hamilton	Carlisle	1-Apr-1999	1-Apr-1999	6	5	9,647	8,028	83.2%	1,338
	Innovations	1-Jun-1999	1-Jun-1999	21	6	33,563	31,695	94.4%	1,509
	Core	1-Sep-1999	1-Dec-1999	16	11	27,483	23,468	85.4%	1,467
	Escarpment	1-Sep-1999	1-Oct-1999	21	6	45,271	39,295	86.8%	1,871
	Stoney Creek	9-Sep-1999	1-Nov-1999	16	3	45,705	35,916	78.6%	2,245
	Intra-Med	1-Oct-1999	1-Oct-1999	13	2	27,934	27,003	96.7%	2,077
	HCHC	1-Feb-2000	1-Feb-2000	8	0	17,000	8,444	49.7%	1,056
	McMaster	1-Sep-2000	1-Apr-2001	17	15	19,515	7,313	37.5%	430
Kingston	Kingston	1-Nov-1999	1-Apr-2000	10	1	19,704	12,029	61.0%	1,203
Paris	Primacare	12-Feb-1999	15-Dec-1999	7	0	9,237	10,257	111.0%	1,465
Total				**145**	**49**	**280,316**	**218,398**		**1,506**

Number of PCNs

Currently there are 11 active PCNs located in four communities – Chatham, Hamilton, Kingston and Paris. At present, all of the active networks are located in the southern part of the province. A twelfth network is expected to begin in Ottawa on April 1, 2001. A thirteenth network in Parry Sound signed its agreement in late March.

There are eight PCNs in Hamilton making it the only site in the pilot with more than one network.

Physicians

There are a total of 145 physicians involved in the 11 active PCNs. The number of physicians in a PCN ranges from six in Hamilton-Carlisle to 21 in Hamilton-Escarpment and Hamilton-Innovations with an average of 13 physicians per network.

Forty-nine (34.5%) of the physicians in the networks are former HSO members. The Hamilton McMaster PCN has the highest number of former HSO members.

Section 3.3 The Provincial Picture

The summary table below presents statistics for all of the PCNs and totals for the province. This section discusses the overall provincial experience and highlights similarities and differences in terms of some of the key features of the PCNs.

PCN Statistics as of March 2, 2001

[illegible]	[illegible]	[illegible] Date	Active to Bill Date	# of Physicians	# of former HSO members	Estimated Enrolment	Number of Processed Enrolments	% of Estimated Enrolment Realized	Physician to Patient Ratio
hatham	Chatham	2-Jun-1999	1-Dec-2000	10	0	25,257	14,950	59.2%	1,495
amilton	Carlisle	1-Apr-1999	1-Apr-1999	6	5	9,647	8,028	83.2%	1,338
	Innovations	1-Jun-1999	1-Jun-1999	21	6	33,563	31,695	94.4%	1,509
	Core	1-Sep-1999	1-Dec-1999	16	11	27,483	23,468	85.4%	1,467
	Escarpment	1-Sep-1999	1-Oct-1999	21	6	45,271	39,295	86.8%	1,871
	Stoney Creek	9-Sep-1999	1-Nov-1999	16	3	45,705	35,916	78.6%	2,245
	Intra-Med	1-Oct-1999	1-Oct-1999	13	2	27,934	27,003	96.7%	2,077
	HCHC	1-Feb-2000	1-Feb-2000	8	0	17,000	8,444	49.7%	1,056
	McMaster	1-Sep-2000	1-Apr-2001	17	15	19,515	7,313	37.5%	430
ingston	Kingston	1-Nov-1999	1-Apr-2000	10	1	19,704	12,029	61.0%	1,203
aris	Primacare	12-Feb-1999	15-Dec-1999	7	0	9,237	10,257	111.0%	1,465
otal				**145**	**49**	**280,316**	**218,398**		**1,506**

Number of PCNs

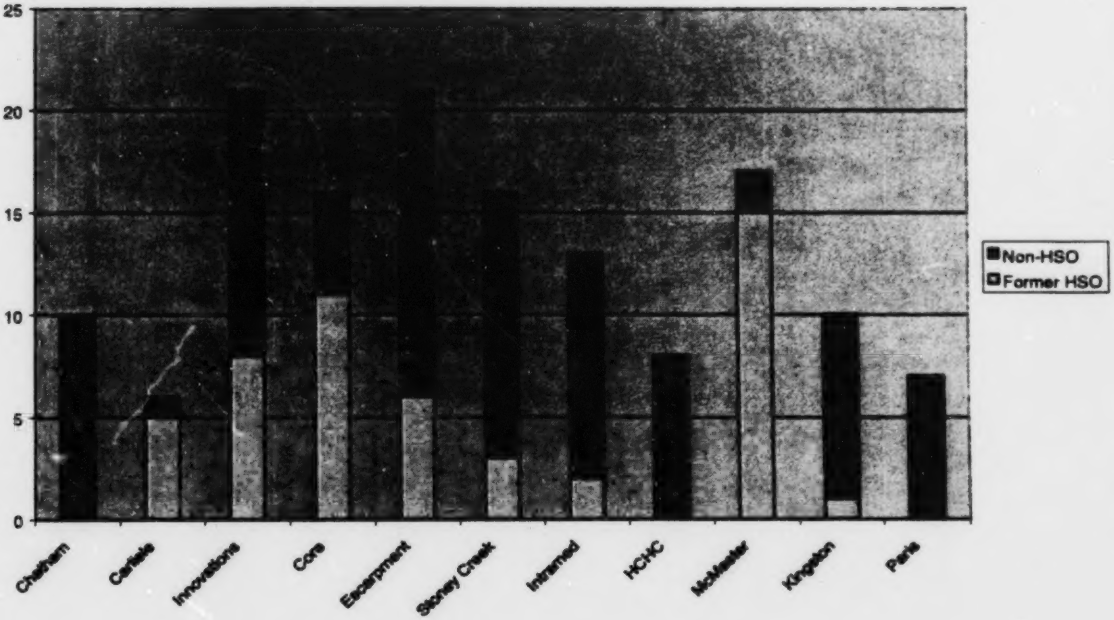
Currently there are 11 active PCNs located in four communities – Chatham, Hamilton, Kingston and Paris. At present, all of the active networks are located in the southern part of the province. A twelfth network is expected to begin in Ottawa on April 1, 2001. A thirteenth network in Parry Sound signed its agreement in late March.

There are eight PCNs in Hamilton making it the only site in the pilot with more than one network.

Physicians

There are a total of 145 physicians involved in the 11 active PCNs. The number of physicians in a PCN ranges from six in Hamilton-Carlisle to 21 in Hamilton-Escarpment and Hamilton-Innovations with an average of 13 physicians per network.

Forty-nine (34.5%) of the physicians in the networks are former HSO members. The Hamilton McMaster PCN has the highest number of former HSO members.



Number of Physicians in PCNs (as of Mar. 2/01)

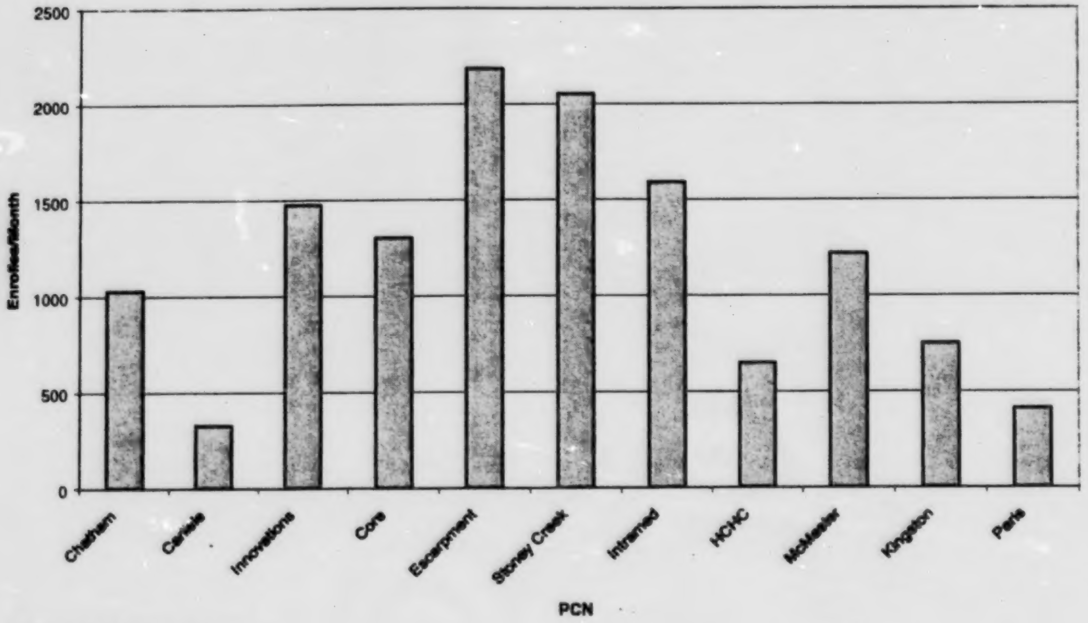
Nurse Practitioners

There are currently seven nurse practitioners in the PCNs. They are employed at the Core, Innovations, Escarpment, Hamilton Community Health Centre, Paris and Kingston PCNs.

Enrolment

As of March 1st, the 11 active PCNs had enrolled a total of 218,398 patients. The number of enrolled patients per PCN ranges from 7,313 at the McMaster PCN to 39,295 at the Escarpment PCN. The average number of enrolees per PCN is 19,854. However, it is important to account for the different start-up times in examining the number of enrolees per network. McMaster is the newest of the 11 PCNs having been in operation for seven months. The Paris PCN was the first to sign their agreement. The Chatham PCN had the longest period between signing their agreement and being active to bill.

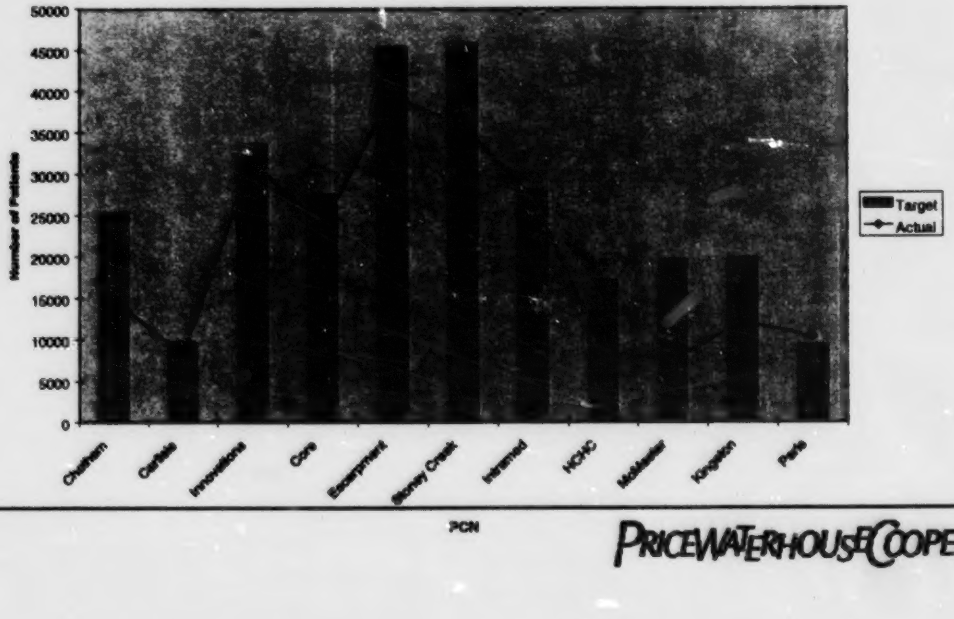
Number of PCN Enrolees Divided by Number of Months Since Rostering Date (as of March 2/01)



Estimated Enrolment

Enrolment targets were estimated by the physicians. To date, one of the PCNs (Paris) has met its estimated enrolment. In fact, the Paris PCN has exceeded its estimate and is currently at 111% of the estimated enrolment. Five other PCNs are above 80% of their estimated enrolment. The graph below compares actual enrolment at each PCN as of March 2, 2001 with the estimated enrolment.

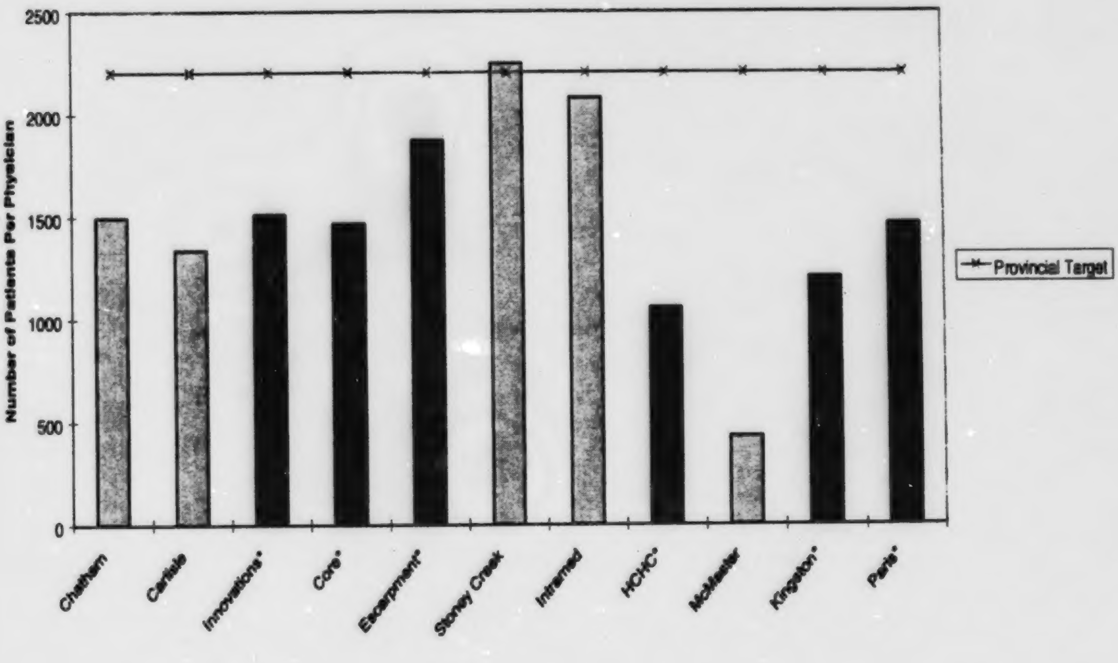
Actual Enrolment Compared to Targeted Enrolment (as of March 2/01)



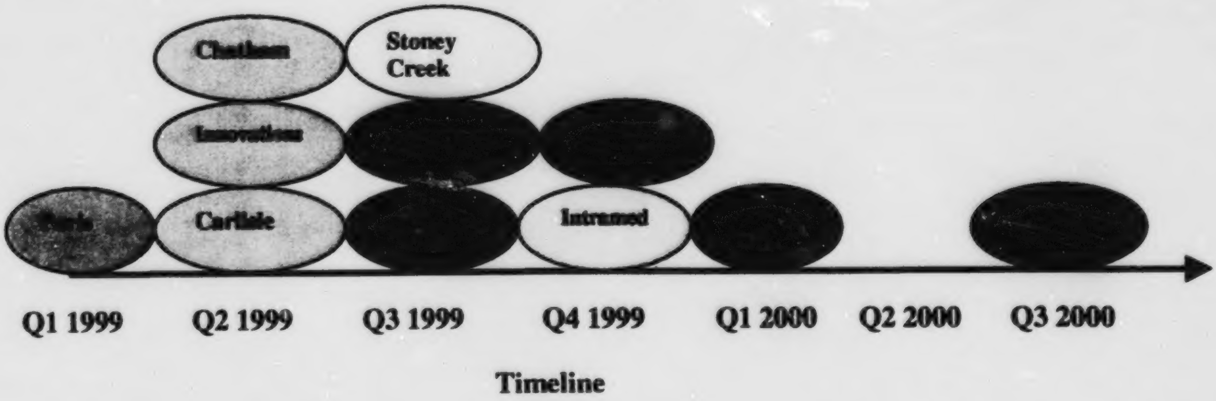
Physician-Patient Ratios

Physician-patient ratios vary throughout the networks from 1:430 at McMaster PCN to 1: 2,245 at Stoney Creek PCN. The average is one physician for every 1,506 enrolled patients. For the purpose of Primary Care Reform, a target physician-patient ratio of 2,200 was set. It has also been estimated that a nurse practitioner would serve approximately 800 patients annually. The graph below illustrates the range of physician-patient ratios relative to the provincial target. In this graph, PCNs with nurse practitioners funded by the primary care reform program are highlighted with an asterisk and shown with burgundy bars.

Physician-Patient Ratios (as of March 2/01)



Start-up Dates



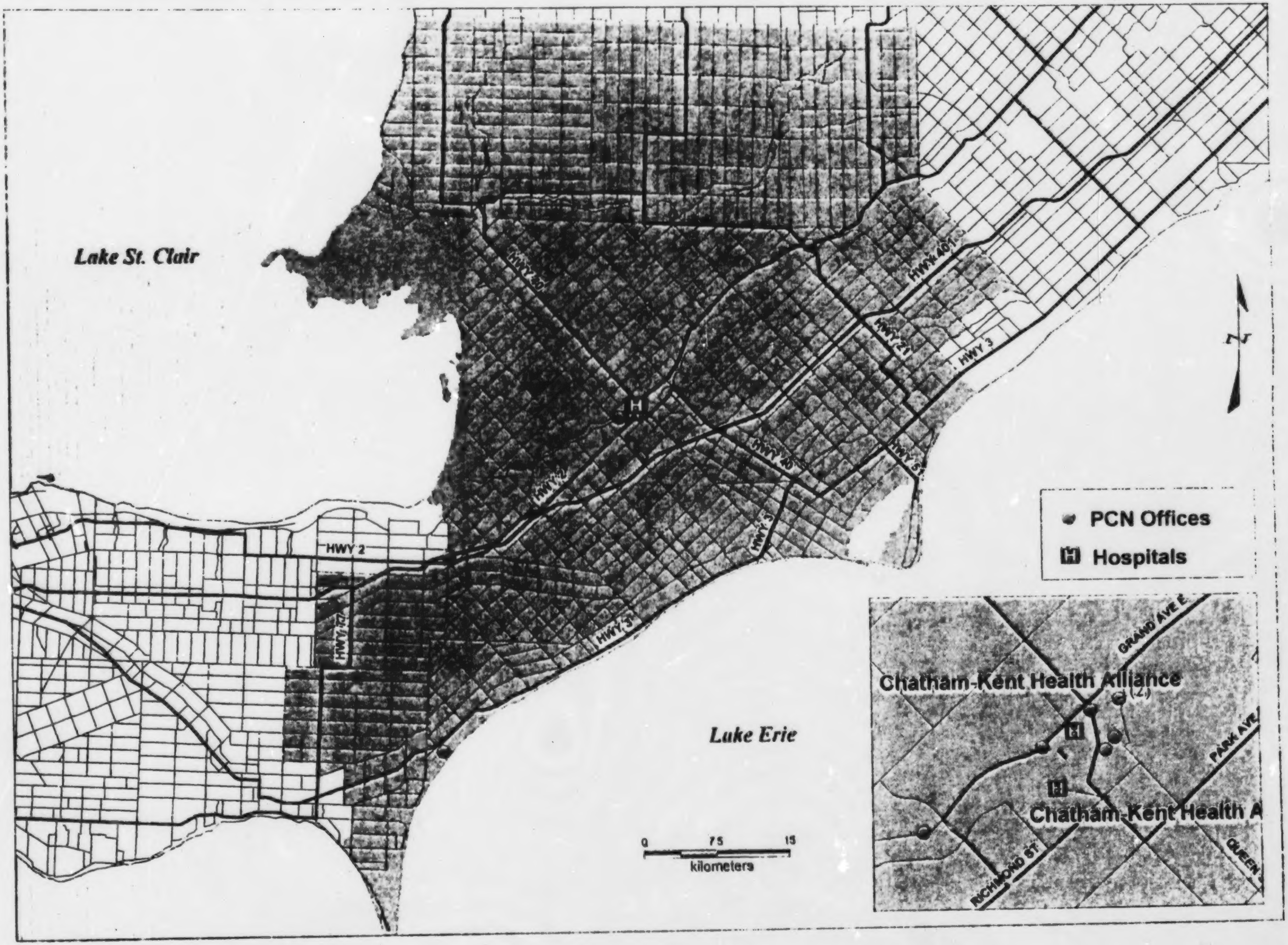
The diagram above illustrates that the eleven PCNs were established at different points in time over the past two years. Nine out of the 11 active PCNs were established in the 1999 calendar year. Two PCNs were established in 2000. Paris had the earliest rostering date and McMaster is the newest PCN.

With the start date for the provincial roll-out of primary care reform quickly approaching it will be important to examine issues related to the transferability/generalizability of the pilot experiences. Discussion of outcomes and lessons learned will include identification of the features of the PCN that may have contributed to the outcome or lesson. For these reasons, the diversity of the PCNs, their similarities and their differences will continue to be recognized throughout the evaluation.

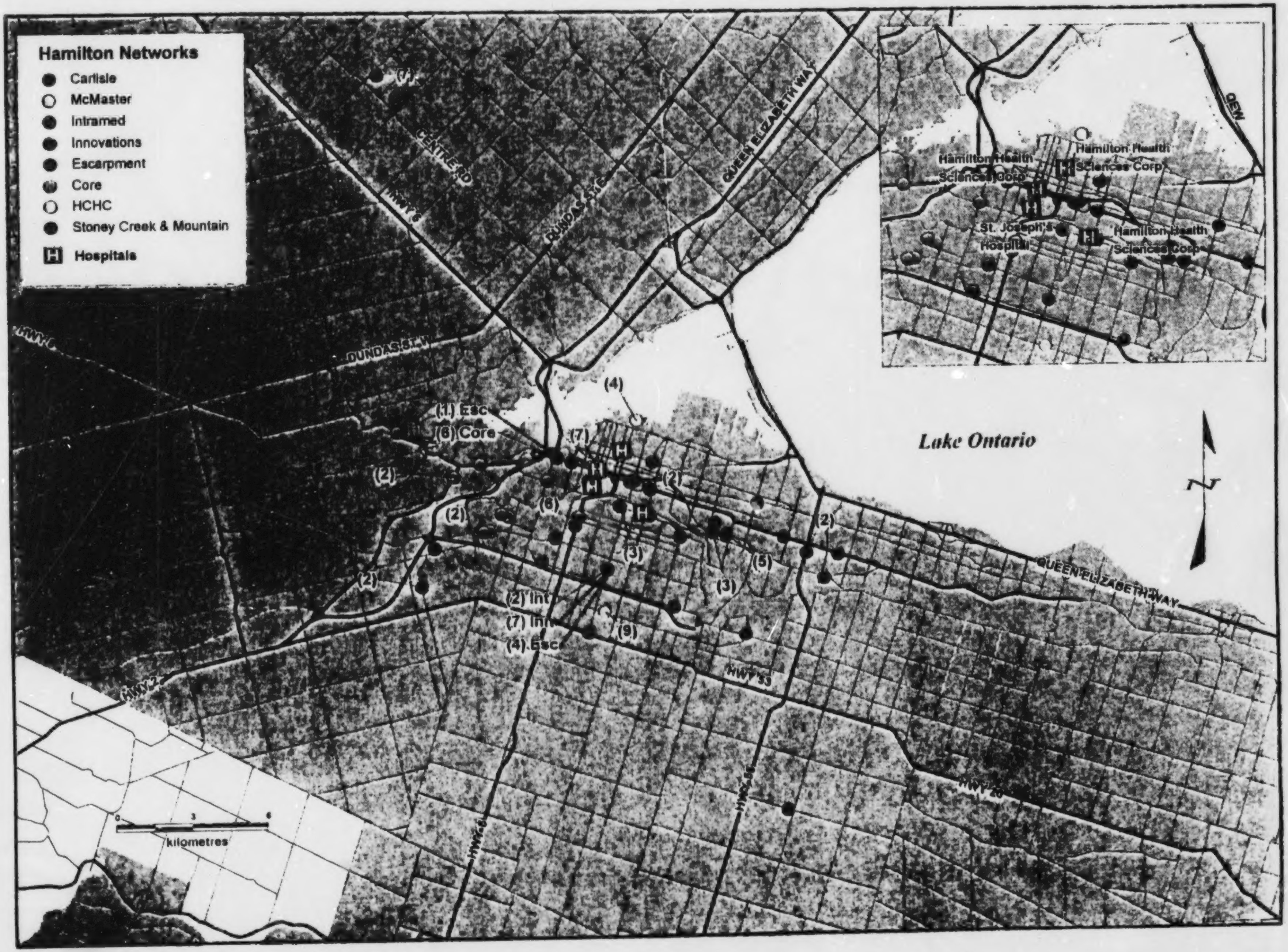
Section 3.4 PCR Site Maps with Catchment Areas and Office Locations

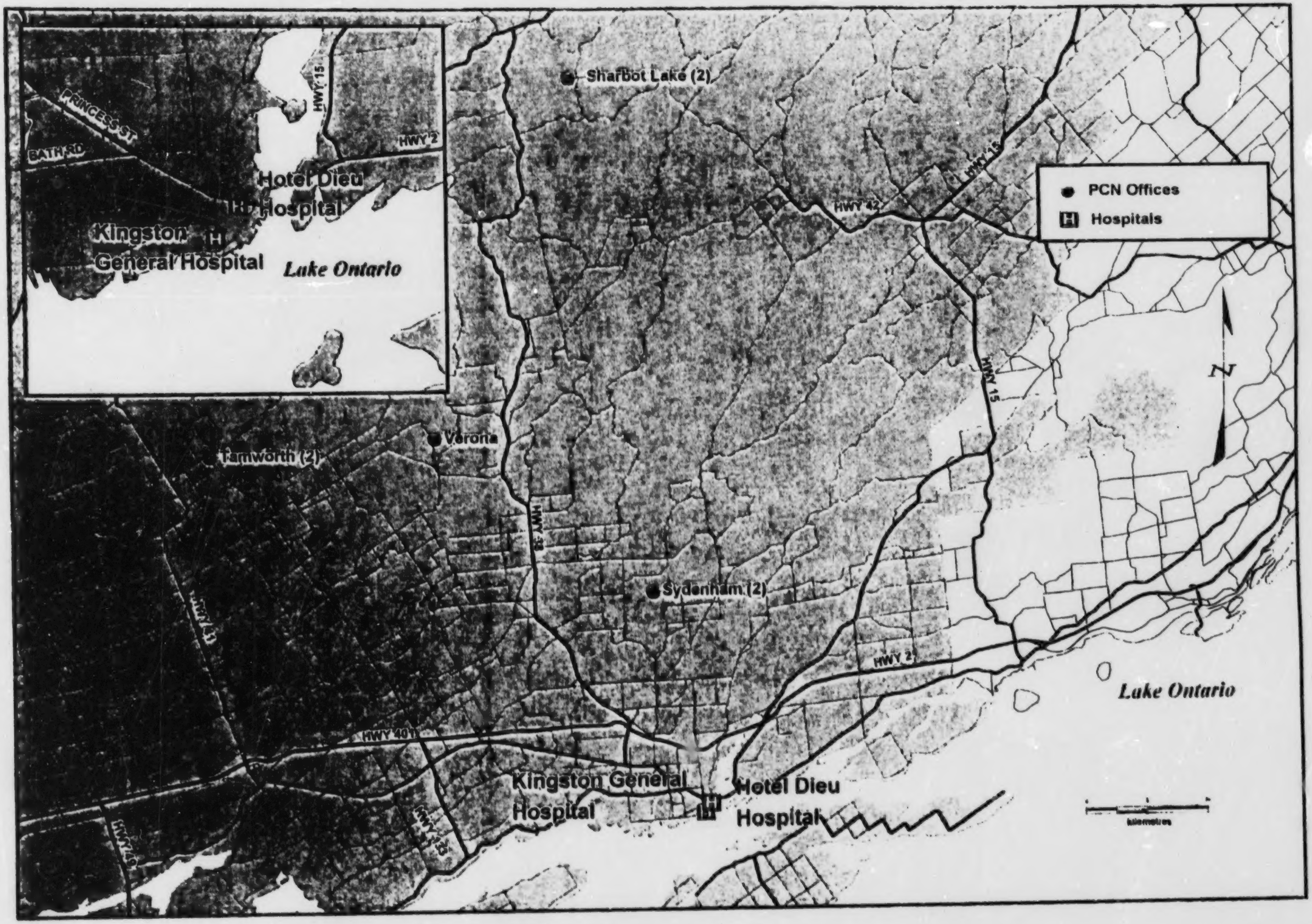
The following pages contain network maps for the primary care reform pilots. They highlight the catchment areas for each network, office locations for physicians in the pilot and local hospital locations.

There are eight PCNs in Hamilton, most of which have several office locations. Each Hamilton network has its own defined catchment area, and there is some overlap of the catchment areas. In the Hamilton map, offices belonging to the same PCN are shown in the same colour. In two instances, physicians from more than one PCN are located in the same office building.


Lake St. Clair
HWY 40
HWY 401
HWY 21
HWY 3
HWY 2
HWY 40
HWY 3
HWY 3
HWY 77
N
PCN Offices
Hospitals
Lake Erie
0
7.5
15
kilometers
Chatham-Kent Health Alliance
(2)
GRAND AVE E
PARK AVE
QUEEN
RICHMOND ST
Chatham-Kent Health A

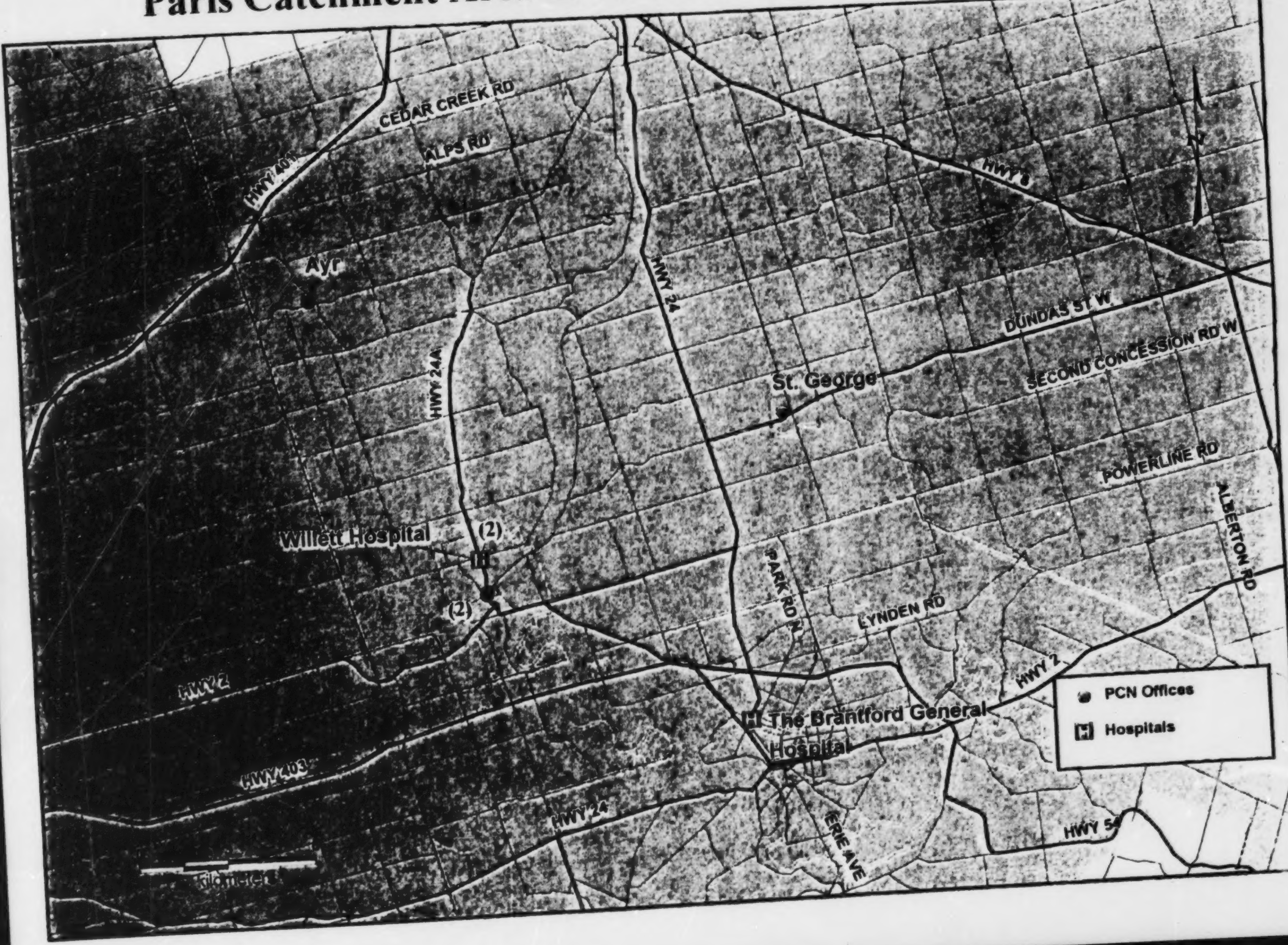
Hamilton Catchment Area & Primary Care Network Offices


Hamilton Networks
● Carlisle
○ McMaster
● Intramed
● Innovations
● Escarpment
● Core
○ HCHC
● Stoney Creek & Mountain
H Hospitals
Lake Ontario
N
QEW
Hamilton Health Sciences Corp
Hamilton Health Sciences Corp
St. Joseph's Hospital
Hamilton Health Sciences Corp
CENTRE RD
HWY 6
DUNDAS ST E
QUEEN ELIZABETH WAY
DUNDAS ST W
HWY 6
(1) Esc
(6) Core
(7)
(4)
(2)
(2)
(6)
(2)
(2)
(3)
(5)
(3)
(2) Int
(7) Int
(9)
(4) Esc
(7)
HWY 2
HWY 53
HWY 6
HWY 56
HWY 20
0
3
6
kilometres



PRINCESS ST
BATH RD
HWY 15
HWY 2
Hotel Dieu
Hospital
Kingston
General Hospital
Lake Ontario
Sharbot Lake (2)
HWY 42
HWY 15
PCN Offices
Hospitals
N
Verona
Tamworth (2)
HWY 38
HWY 41
Sydenham (2)
HWY 15
HWY 2
Lake Ontario
HWY 401
Kingston General
Hospital
Hotel Dieu
Hospital
HWY 133
HWY 49
kilometres

Paris Catchment Area & Primary Care Network Offices


CEDAR CREEK RD
ALPS RD
HWY 401
HWY 8
N
Ayr
HWY 24
HWY 24A
DUNDAS ST W
SECOND CONCESSION RD W
St. George
POWERLINE RD
ALBERTON RD
Willett Hospital
(2)
(2)
PARK RD N
LYNDEN RD
HWY 2
HWY 2
The Brantford General Hospital
HWY 403
HWY 24
ERIE AVE
HWY 54
Kilometers
● PCN Offices
H Hospitals

PART B: THE FOUNDATION FOR AN EVALUATION OF PRIMARY CARE REFORM PILOTS

Section 4 **Literature Review**
Section 5 **Primary Care Evaluation Methodology**
Section 6 **Key Informant Views on the Evaluation**

SECTION 4: LITERATURE REVIEW OF PRIMARY CARE EVALUATION

Reform of the delivery of primary health care services is an international concern. Numerous jurisdictions have implemented new models for the delivery of primary health care services and numerous jurisdictions have conducted evaluations of their primary care reform models.

Appendix E includes the findings of the literature review on best practices for evaluating primary care reform and lessons learned from evaluations of primary care reform in other jurisdictions.

Evaluation of primary care reform appears to be a priority for numerous jurisdictions. The literature review reveals the experiences of international jurisdictions with primary care reform and the evaluation of primary care reform models. In the Canadian context, there is very little evaluative information as many provinces are only just implementing or planning to implement reform. The Canadian Medical Association has outlined ten guiding principles to frame any evaluation undertaken. They are as follows:

- Write Clear, Meaningful and Measurable Reform Objectives
- Evaluate Both the Process and the Impact of Reform
- Measure All Relevant Effects
- Evaluate Components of Reform as Well as Overall Reform
- Develop an Evaluation Plan at the Same Time as the Reform is Being Planned
- Negotiate Resources for Evaluation Up Front
- Involve All Relevant Stakeholders in Planning, Monitoring and Evaluating
- Ensure a Transparent Evaluation Process
- Make the Rules for Disseminating Findings Clear at the Beginning
- Ensure that the Evaluation is Conducted Ethically

The following section outlines the methodology for this evaluation.

SECTION 5: PRIMARY CARE EVALUATION METHODOLOGY

The purpose of this section is to briefly outline the methodology that will be followed in conducting the evaluation of the primary care reform pilot sites.

Section 5.1 Overview of PricewaterhouseCoopers' Approach and Methodology Framework

a) Conceptual Framework for Primary Care Evaluation

One of the challenges in any evaluation is to balance the need for "tried and true" methodologies that have been tested and validated with the need to recognize the unique, local features of the specific program being evaluated. Given the importance of this evaluation to the future of primary care in Ontario, a methodology was required that would address both needs effectively. The conceptual framework for this evaluation draws on an extensive review of evaluation methodologies. It represents a synthesis of the various approaches adapted to suit the Ontario environment, the objectives of primary care reform and the identified evaluation questions.

The approach for this evaluation draws strongly from the conceptual and evaluative framework developed and implemented by Dr. Barbara Starfield of the Department of Health Policy and Management, Johns Hopkins University School of Hygiene and Public Health. Dr. Starfield is a physician and a researcher. She is an expert advisor on the team and is working with the team to adapt and develop methodological tools specific to PCR in Ontario and the needs of this evaluation.

The Starfield framework assesses primary care reform from both a systemic and patient-provider contact perspective, and incorporates four unique features of primary care:
- first contact care
- longitudinality (patient-focused care over time)
- comprehensiveness
- co-ordination

A substantial amount of research suggests that primary care systems oriented around these principles produce better health outcomes.

The table below illustrates that each of the four features has a ***structural*** and a ***performance component***. ***Structural components*** relate to the ability of the health care system to deliver the desired services and ***performance components*** relate to those activities that constitute the delivery and receipt of services. These components will encompass the implementation, process and outcomes of PCR.

Features of Primary Care	Structural Components	Performance Components
Structural and Systems		
Comprehensiveness	Range of primary care services	Service provided compared to needs
Patient-Provider Interaction		
First Contact Care	Accessibility of primary care services	Utilization of primary care services for new problems
Longitudinality	Identification of regular providers	Utilization of regular provider for ongoing health care

The framework provides guidance for identifying key features and indicators for assessing primary care, and measuring them. Evaluation questions, measurement indicators and measurement tools can be identified for each component. During the course of this project, we are using the proven instruments from this model along with other measurement instruments.

b) The Three Phases of this Evaluation

There are three phases to the evaluation. Work for the various phases overlaps. Below is a brief description of the focus of each of the three phases.

Phase 1 - Analytical Description of the Implementation Process

With the presentation of this report, Phase 1 of this evaluation has been completed. This phase of the project included a descriptive assessment of the background, start up and implementation of PCR. It identified the operational and organisational factors essential to achieving the successful implementation of primary care sites and the obstacles to implementing PCR and how these could be overcome. This phase included an assessment of the implementation of PCR in relation to its design.

Phase 1 included an assessment of the following components:
- Contracting negotiations
- Patient enrolment
- Information technology use
- Telephone triage
- Management and governance
- Other start up issues
- Best approaches for implementation

Phase 1 includes the following information collection methods:

- Validation of evaluation questions and framework with evaluation team, Evaluation Committee and expert advisors
- Key Informant Interviews
- A review of the relevant literature
- Focus groups with patients and one focus group with MOHLTC senior staff
- Site visits which included interviews with physicians, nurse practitioners and administrative staff
- An office start-up survey

In several instances, we used various information collection instruments in order to cross-validate the results.

Phase 2 – Evaluation of the Primary Care Reform Process

This component includes an evaluation of the PCR process and an assessment and description of the situation at each of the pilot sites. This will include managerial, service provision, and patient and provider components. Specifically, we will be looking at the service mix, staffing, patient characteristics, the treatment of specific diseases, preventative interventions, IT and telephone triage systems at the pilot sites. Additionally, we will be assessing the relationship of the PCNs with the rest of the health care system.

Phase 2 includes an assessment of the following components:

- Assess management, services and patient/provider satisfaction
- Description of service mix
- Description of roles and responsibilities
- Description of physicians and patient use of telephone service
- Description of CME courses
- Assessment of evolution of management / membership / staffing / services
- Description of IT use

Phase 2 includes the following information collection methods:

- Site visit to each site
- One-on-one interviews
- Patient focus groups
- Patient surveys
- Provider surveys
- Facility surveys / record review

In several instances, we will use various information collection instruments to cross-validate the results and to include qualitative and quantitative components to the research.

Phase 3 - Evaluation of the impact of Primary Care Reform on Outcomes

Phase 3 will focus on the impact of primary care reform. It will assess whether the goals and objectives of PCR have been achieved including the impact:

- On processes of care, eg. co-ordination, duplication of services, drug use and prevention
- On access to care
- On distribution of physicians
- On patient and provider accountability
- On CME (Continuing Medical Education)
- Of payment incentives on hiring nurse practitioners
- Of nurse practitioner on practice and roster size
- Of payment method on service mix
- Management strategies
- Of telephone support on patient care, emergency room visits and physician practice
- Of PCNs on evolution of reform components over time

Phase 3 includes the following information collection methods:

- Patient surveys
- Provider surveys
- Facility surveys / record review
- Focus groups
- Administrative data extraction, linkage and analysis
- Preventative intervention comparison – pap, mammography, immunization
- Case studies

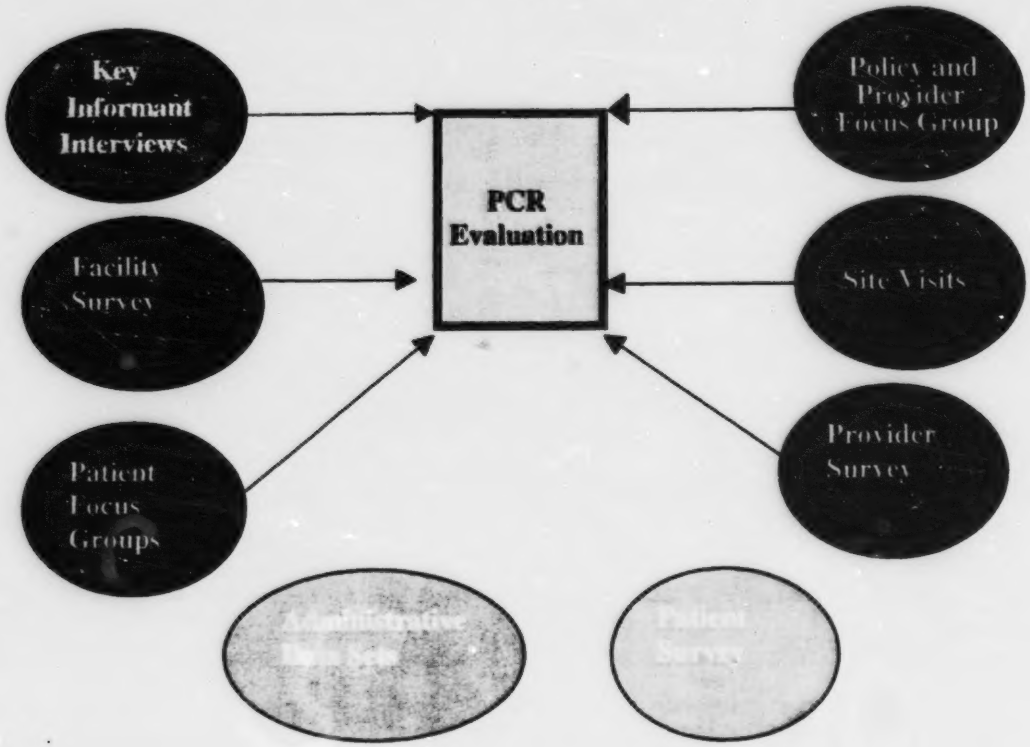
Section 5.2 Development of Surveys

To evaluate PCR in Ontario, survey instruments will be a key component of the methodology. The team is in the process of finalizing patient and physician surveys, which were adapted from the Starfield evaluation methodology. To ensure that the survey instruments are specific to PCR in Ontario and meet the needs of this evaluation, the team worked closely with Barbara Starfield and a group of expert advisors from various academic institutions throughout Canada (i.e. University of Toronto, University of British Columbia, University of Montreal, and Dalhousie University.) As other provinces such as Nova Scotia and Quebec have also been using the Starfield framework, it was important to consult with these provinces to identify lessons learned in the use of this framework.

Section 5.3 Other Methods of Data Collection

A key feature of our approach to this project is the use of both quantitative and qualitative data collection methods. In addition to the survey, quantitative data will also be collected through various administrative data sets (e.g. patient utilization information, PCN statistics, etc). Qualitative information will be collected from patients, providers and other stakeholders through a mix of interviews and focus groups. This will be guided by structured interview guides and focus group guides. In several instances, we will use various information collection instruments to cross-validate the results. Some information will be collected at the pilot sites giving the evaluators an opportunity to also view the physical facilities and observe processes.

The following diagram depicts the data collection activity for this evaluation. For more information about the methodology, please see **Appendix K**.


Key Informant Interviews
Policy and Provider Focus Group
PCR Evaluation
Facility Survey
Site Visits
Patient Focus Groups
Provider Survey
Administrative Data Sets
Patient Survey

Section 5.4 Evaluation Activities Completed to Date

Phase 1 of the evaluation consisted of the following activities:

- A review of literature on primary care evaluations in other jurisdictions
- Interviews with 28 key informants to identify issues and concerns about the evaluation process and gather preliminary views on the implementation of the pilots

- Site visits to each of the 11 active PCNs. During the visits interviews were conducted with the network leader, some of the other physicians, other providers (if applicable) and, in some cases, the office administrator. In cases where PCN physicians were located in more than one office, visits were made to at least two of the office locations
- Two patient focus groups with patients of two PCNs – Kingston and Hamilton-Carlisle
- An "Office Start-up Questionnaire". A questionnaire was sent to every office in the 11 active PCNs to collect general information on the infrastructure and staffing in the PCNs
- Review and analysis of Ministry enrolment reports.
- Review of background information on the establishment of the primary care pilots (e.g. template legal agreement, description of payment mechanisms, guidelines for nurse practitioners, etc.)
- Analysis of demographic data and creation of profiles of each pilot site catchment area
- Development of case studies on the implementation of seven PCNs

Section 5.5 Summary

In this section, we have outlined the methodology and data collection activities for all three phases of this evaluation. Throughout this evaluation, we will be using several different data collection techniques to cross-validate our results.

Our evaluation methodology centres on the Starfield framework. The Starfield framework assesses primary care reform from both a systemic and patient-provider contact perspective, and incorporates four features of primary care:

- First contact care
- Longitudinality (patient-focused care over time)
- Comprehensiveness
- Co-ordination

Through the use of this framework we will address the three evaluation phases regarding the implementation, process and outcomes of primary care reform.

SECTION 6 KEY INFORMANT VIEWS ON THE EVALUATION

The goal of the evaluation methodology is to provide evidence-based, value-added information to inform policy development and decision-making. To ensure that the evaluation results are responsive to the needs of decision-makers and stakeholders, a series of key informant interviews were conducted in January and February 2001. The detailed results of the key informant interviews are included in **Appendix F**.

Key informants identified the following critical success factors for the evaluation:

- Fairness/Balance
- Objectivity
- Transparency
- Thoroughness
- Clarity
- Connectivity from methodology → analysis → conclusions
- Linkages with other relevant provincial evaluations
- Evidence-based recommendations to support policy-making
- Information to inform province-wide expansion of PCRMethodological rigour:
- High participation rates
- High quality, comprehensive data
- Ability to merge information from several sources
- Minimal burden on PCN staff

PART C: PRELIMINARY FINDINGS AND IMPLEMENTATION EXPERIENCES

Section 7 **Physician Characteristics**
Section 8 **Network Characteristics**
Section 9 **Contract Negotiations**
Section 10 **Enrolment Process**
Section 11 **Governance Models**
Section 12 **Payment Mechanisms**
Section 13 **Budgets**
Section 14 **Staffing and Multidisciplinary Involvement**
Section 15 **Nurse Practitioners**
Section 16 **Providing Patients with 24-Hour Access to Care**
Section 17 **IT Assessment and Acquisition**
Section 18 **Physician Satisfaction**
Section 19 **Patient Perspectives**

Part C presents the findings on the implementation of Primary Care Reform (PCR) at the four active sites – Hamilton, Chatham, Paris and Kingston. The findings reported in this section are based on information collected from a variety of sources, using a variety of methods including: key informant interviews; interviews with PCN physicians, other providers and administrative staff; patient focus groups; an office start-up questionnaire; a review of background information including PCN contracts, budgets and roster statistics; and an analysis of demographic data on the PCN communities.

The majority of the findings reported in this section reflect the views expressed during visits to PCR sites, the views of rostered patients, participant physicians and key informants, and the information found in the available background documentation. A list of participants interviewed and interview guides are contained in **Appendix L** and **Appendix M** respectively.

This Phase 1 Report was prepared within two months of commencing the evaluation. At this stage it is not possible to reach definitive conclusions. However, a great deal of very helpful and insightful information has been obtained on the implementation of primary care networks.

Each of the following sections ends with a set of questions to guide future decision-making, with a focus on the provincial roll-out.

SECTION 7: PHYSICIAN CHARACTERISTICS

Overall there were a number of similarities in the characteristics of the physicians participating in PCR, as well as their reasons for participating in PCR.

What is similar among all participants in the PCNs was their stated desire to deliver health care in a different way. They saw participating in the PCN pilots as an opportunity to try something new and improve the quality of care. For most physicians at the Kingston and Paris sites, changing the way they practice was the main reason they identified for getting involved in PCR and they felt that the capitation payment system would greatly facilitate this. The IT component was considered an added bonus that would assist in improving the delivery of care.

For the most part, the offer of IT systems by the MOHLTC was the main reason physicians in Chatham and Hamilton joined PCR as pilot sites. There was a desire on the part of physicians to use the new IT systems to improve patient care.

Whereas, 57% of general practitioners in Ontario are under 50 years of age, and 41% are under 45, the average age of the physicians in the PCNs is approximately 48 years. Most participants have been in general practice for some time, and many are nearing retirement. At least two PCNs have physicians (three in total) who have come out of retirement to join the PCN. The average length of time in practice is 23 years; this ranges from 7 to 49 years, not including a few new graduates where the PCN is their first full-time medical experience. Some participants are affiliated with teaching and research institutions, while others are not.

Overall, there are 145 physicians in active PCNs. Fifty (34%) are former HSO physicians. This is substantially higher than the provincial average for HSO physicians of 2.2%. The Hamilton and Kingston sites have some former HSO physicians, while neither Paris nor Chatham have any former HSO physicians.

Approximately 40% of PCN physicians are female, compared to the provincial average of 32%.

There are a variety of practice arrangements from single physician offices to multi-physician offices. In many instances, the physicians participating in PCR are in solo practice or a practice with one other physician. One challenge that many in this circumstance met in joining a primary care network was working with other physicians in a group and overcoming the mindset of working as a solo practitioner.

Some physician practices are located in close proximity to others, while great distances separate some practices at the Kingston, Paris and Chatham sites. Some practices – mainly in Hamilton - are co-located with a range of other diagnostic and support services (e.g. labs, radiology, mental health counselling, pharmacies, home care agencies). Some offices have libraries including patient libraries (book and video loans), classrooms, etc. Carlisle has an "operating room" for minor surgical procedures. HCHC is co-located with a wide range of other health providers (e.g. specialists, VON, laboratory, radiology, pharmacy, and an occupational health wellness centre).

Although the vast majority of the physicians have hospital privileges at one or more hospitals, most physicians work out of only one office location. Some travel to the on-call office when they are on call.

Questions to Guide Future Decision-making

What are the implications of the pilot physician characteristics for the generalizability of the pilot results, particularly when:
- The average age of physicians in the pilots is about 48 years of age and an average of 23 years in practice?
- The pilots' sites have a much larger representation of former HSO physicians than the provincial average?
- There is a greater proportion of women in the PCR pilots than the provincial average?

Will the diversity of physician characteristics in the province as a whole impact upon strategies for future negotiations and implementation of PCR?

SECTION 8: NETWORK CHARACTERISTICS

It is important to point out the unique features of each of the pilot networks. Their geographic location, the historic relationships among the physicians in the network, the extent of prior exposure to primary care reform initiatives (including participation in an HSO) and the interests and leadership of specific individuals all impacted on the nature of the Primary Care Network that evolved.

Some of the networks were formed based on historical relationships among physicians. These groupings were often formed around larger groups of physicians who shared office space and after-hours call groups. For the most part, these historical relationships lent themselves to the natural grouping of some networks.

Critical differences between the networks that can be identified include:
- The extent of shared network identity
- The mix of former HSO and former fee for service physicians
- Differing methods of remuneration
- Whether or not the offices are in a shared call group
- The extent to which the participants and practices collaborate in community initiatives and outreach
- The amount of sharing of common experiences and troubleshooting through meetings and telephone calls
- The patient profile
- Collaboration related to IT

Some PCNs have invested heavily in creating a network identity in the community they serve, others have not. For example, in the Paris area a great deal of effort has been spent in creating brand recognition of PrimaCare (the name of the Paris PCN), and many patients in the area are familiar with the term and would be able to identify themselves as members. This effort has included production of advertising materials, a Web site, community forums and outreach, and media coverage. It has also been augmented by strong support from the Willett Hospital, which has a high profile in the community. This is in contrast to some other networks, such as Chatham and Kingston, where the providers for the most part focus exclusively on their own practices and their patients would be less aware of any co-operation among offices within the network.

Whether or not some or all of the physicians within a network share a call group also influences the extent to which networks co-operate and communicate.

Some physician groups are very selective about the physicians that they allow to join their group and some practices have had difficulty affiliating with other groups. Some of the factors involved were:
- The clinical profile of the patient population (e.g. type of medications they are on, such as narcotics; mental health; substance abuse, "house-bound patients")
- The transient nature of the patient population, as this will influence outside use rates

- The geographic location of the practice
- Socio-economic profile of the patients
- The proportion of nursing home patients in the practice

Many of the networks have participated in local community outreach programs. This has involved setting up workshops and information sessions for their patients about specific illnesses or conditions, scheduling a clinic for flu shots or collaborating on disseminated information. The extent to which they have participated in these types of activities has also impacted on the sharing of professional experiences and opinions and created the benefit of developing a collegial relationship among physicians who in some cases were formerly isolated in their practices.

In all networks there is greater interaction among health care providers than prior to PCR. They all meet regularly, although the frequency of these meetings vary. The physicians in the Paris network meet in person once every two weeks. The Kingston network meets less frequently, but has attempted to ensure at least one meeting a month either in person or by conference call. At these meetings, issues related to primary care reform itself are discussed and these are considered excellent settings to share experiences and frustrations. As well, some physicians have indicated that the meetings have facilitated camaraderie among peers and that it has been an excellent opportunity to develop relationships and "to share experiences and ideas among peers with shared values and commitment."

Even in instances where physicians do not share call or patients, there are opportunities for collaborating on learning opportunities, sharing experiences, sharing residents and locums, developing some specialisation, sharing overhead, and dividing managerial labour in areas like IT, risk management, etc.

Questions to Guide Future Decision-making

What are the implications of the "solo practice" mindset for achieving greater collaboration among physicians?

How can historical physician relationships be built on? (such as membership in a call group)

How is the group or network approach applicable in areas where great distances separate physicians? Should this be considered in a different context than network participants who are in closer proximity?

How will the unique requirements of certain physicians and their patient populations be taken into account? For example, how will physicians with a large number of patients with mental health conditions, diabetes or HIV be integrated into a PCN?

SECTION 9: CONTRACT NEGOTIATIONS

Section 9.1: Overall Experience

All of the physicians interviewed described the contract negotiation process as long and arduous, and that it took up far more time and meetings than anticipated. It was reported that this negatively impacted on patient care and personal time of all physicians involved. They recognised that they "were writing the book," but felt that many of the issues and requirements could have been addressed in a more timely manner if they had been anticipated in advance and planned for accordingly by the MOHLTC. One participant commented that "it's like trying to pack clothes for a trip that nobody's ever been on." Many commented that the MOHLTC was fair in the negotiations. Those physicians who had a negative experience in the contract negotiations felt the experience overshadowed the rest of their PCR experience.

Section 9.2 Negotiating the Content

As discussed earlier in the report, it is our understanding that the negotiation of a standard template agreement (the Primary Care Network Agreement) occurred centrally between the OMA and the MOHLTC and that network-specific provisions were negotiated between each PCN and the MOHLTC (with some legal support from the OMA).

As the pilots were breaking new ground, there was a need for on-going discussions and negotiation at the senior levels of the MOHLTC and OMA as issues arose. This created some delay in the contract negotiations with the networks, as time was required to resolve outstanding issues.

It should be noted that few of the physicians involved were accustomed to negotiating complex business arrangements. Several participants recognized their limitations related to administrative and managerial skills and felt that they required greater support in this area. They suggest that there should have been more problem-solving support and that they would have benefited from more support from both the MOHLTC and OMA.

Many physicians indicated that they felt that the process leading up to the signing of the contract cannot be construed as a "negotiation" in the true sense of the word because many of the issues discussed had already been pre-determined. Some participants expressed frustration at participating in meetings on issues that turned out to be non-negotiable. There was also the impression that some of the MOHLTC negotiators were not empowered to make decisions on the behalf of the Ministry thus creating long delays if they had to go back to the Ministry for a resolution.

Some physicians expressed concern that it was difficult to revisit issues covered in the agreement once more information became available. They acknowledged their naiveté during the negotiations, but felt that allowances should have been made because they were part of an experiment or pilot and this was part of a learning process for the physicians and the Ministry.

In order for PCR to move forward, many PCN physicians see a need for an effective mechanism for the collective representation of their concerns and interests. PCR physicians have identified the need for a collaborative approach whereby primary care doctors work together to identify their common needs for the purposes of negotiations and addressing on-going administrative issues.

At the end of the negotiation process physicians said they were overwhelmed with the 70-page contract. The administration of the legal process added an additional layer of complexity to the contractual process. Many physicians questioned why the contract had to be so long and complex. Nonetheless, some expressed disappointment that some components that they believed had been agreed upon verbally were not forthcoming if they were not spelled out in the contract. In hindsight, some doctors feel that they took more on good faith than they should have and that it is necessary to get every detail in writing.

The four issues most commonly raised during the contract negotiations, as well as issues that have come to light during the operationalization of the contracts, are described below.

1. Definition of Catchment Area

For many sites the definition of the catchment areas was very important. For example, the Paris PCN is located close to and attracts many patients from Brantford, Cambridge and surrounding area. The physicians felt that their existing patients should be grandfathered into the PCN and given the option to roster with them, whereas the MOHLTC wanted rostering to be based on a specific catchment area based on Forward Sortation Area or postal code. Physicians believe that their patients should have the option of continuing to receive care from them as a rostered patient even if they are outside the defined catchment area.

2. Payment Mechanism

Most physicians wanted to be part of a capitated network. However, some former fee-for-service physicians were encouraged to form a network with a reformed fee-for-service payment mechanism.

While some sites were successfully able to negotiate a capitated payment scheme, others were not. Some of the proposed sites that are just coming on board, or still in negotiations, wanted to be in the capitation payment scheme. However, this was not an option. This has delayed the contract negotiations and implementation of those networks. In one or two instances this may have resulted in their lack of participation in the pilots altogether; these proposed sites are now waiting for the option to participate in the provincial roll-out.

During the contract negotiations some key issues arose with regard to the capitation rate. Some expressed concern that the global capitation and other funding mechanisms had been negotiated in advance and that they did not have input. Additionally, some physicians opposed limits on the roster size and others felt that the capitation rate should be higher for patients over the age of 80.

Some physicians felt that the uniqueness of rural practice was not adequately compensated for in the capitation rates. The physicians in the more remote rural areas were of the opinion that they provided certain services over and above those provided by their more urban counterparts because of their distance from a hospital (e.g. emergency resuscitation, suturing). The physicians felt that these services should either be excluded services or more adequately compensated for in the capitation rate.

In negotiating excluded services, the Primacare (Paris) PCN was in the unique position in that all members of the PCN provided services at the Urgent Care Clinic at the Willett Hospital one day per week. The PCN successfully negotiated to have these services excluded from capitation and H and K codes billable on a fee for service basis.

Physicians from former HSO practices expressed concern about the reduced capitation rate for elderly patients; as the capitation rate for treating elderly patients in a PCN is less than the comparable rate in an HSO.

3. Outside Use Negation Rate

Outside use (negation) is defined as the fee for service (FFS) billings generated by enrolled PCN patients for included services (as listed in Appendix A of the PCN agreement) by non-PCN physicians within a PCN's defined geographic area for services. Excluded from this outside use calculation are the FFS billings of excluded codes (any fee schedule code in the Schedule of Benefits that is not listed as an included code in Appendix A to the PCN agreement), the general practitioners Specialist Codes, and FFS billings by physicians outside a PCN's defined geographic area. The physicians interviewed expressed the following concerns related to the outside use/negation rate:

- As PCR was in the pilot phase, enrolment voluntary and limited to certain geographic areas and exclusive use difficult to enforce, some physicians felt that negation should not have applied
- Some of the former HSOs had achieved low outside use rates (as low 0.5%) in the past and yet their PCN contract established a much higher rate ranging from 3-5%
- Some physicians expressed concern that the outside use rate was attributed to the PCN as a whole rather than to each physician, even though the MOHLTC calculates the outside use rate of each physician. More specifically, they wondered why physicians in the PCN with low outside use rates should be penalized because other physicians in the PCN had higher outside use rates
- In terms of addressing outside use, concern was expressed that MOHLTC statistics were several months behind. For example, physicians only learned several months later that their outside use rate for the summer was high and they don't have a chance to correct the problem as it occurs.[1] Another administrative point was that outside use information was

---

[1] Outside use reports are now being sent quarterly. The lag in reporting is due to the fact that all physicians have up to six months in which to submit claims for services delivered to patients. Therefore, the claims database is not completed until six months after the service date.

reported on a patient-by-patient basis. Thus a physician needs to go through each patient report to assess the outside use rate.

4. Liability Insurance

All practising physicians must maintain their own medical malpractice liability insurance and annual College dues. In addition, the PCN must maintain, at its own expense, a policy of comprehensive general liability insurance providing coverage for a limit of not less than $5,000,000. Some physicians indicated that this requirement represents increased coverage and an additional $200-$300 per year for which they are not reimbursed.

Section 9.3 Relationship with the MOHLTC

A key factor in the negotiation process was the need to "get used to working with the MOHLTC" and to develop a working relationship with them. This entailed the need to overcome a historical distrust on the part of some physicians.

Overall the relationship with the MOHLTC was reported as fair to good. According to those interviewed, the issues of contention discussed above were met with varying degrees of receptiveness by the MOHLTC. While some physicians reported that they felt the MOHLTC was sensitive to their needs, others felt that they were not sensitive to their specific requirements or unique situations and that they were unwilling to explore the issues in greater depth.

Interviewees highlighted that while the MOHLTC was often slow to respond to requests and submissions, and, in many instances, had not developed standard operating procedures, they were approachable and co-operative. Several physicians felt them to have been fair.

It was felt that those in the MOHLTC often did not know the answers to many questions themselves and that the physicians were unsure of the lines of communication and which person they should be speaking to on a specific issue.

A common complaint was that the MOHLTC often defaulted on its timelines, but expected physicians to meet theirs. Physicians cited that, in some cases, it sometimes took as long as six to eight weeks to get a response to certain requests or issues. As well as the inconvenience and disappointment this created, sometimes changes would occur and/or opportunities would be lost during delays. Some of these delays also incurred costs to the PCN. In some instances, trust was threatened or broke down.

Nonetheless, many physicians pointed out the MOHLTC senior leadership was very responsive to their concerns and where possible addressed their needs and responded quickly.

Implementation of the Contract

Regarding the implementation of the contract and PCR, PCNs had to design their own implementation blueprint and process, and problem-solve as they went along. While

recognising that they were pilots, some sites felt that the process should have been better laid out and that a detailed implementation framework was required.
Some of the contract requirements, such as the overall administration requirements and the number and frequency of budgets, were onerous and took a lot of time to complete.
Additionally some items which were verbally promised during contract negotiations (e.g. electronic enrolment) that would have resulted in time-savings were never delivered upon.

Success factors for the negotiations

Several of the parties we interviewed pointed to what they felt were key success factors in negotiating a good contract:

- Have a champion – it is important to have a dynamic leader with strong negotiating skills
- The leader must communicate well with other PCN members and keep them abreast of and involved in the process
- Know what "deals" other PCNs are getting - information is power; the contractual terms of other PCNs provides leverage for one's own negotiations
- There is a great difference between negotiating a three-year contract (the length of the pilot program) and a contract with a longer term (potentially for those involved in the provincial roll-out)
- Get every detail in writing, do not rely on verbal agreements
- Have a blueprint or plan up-front
- Ensure reasonable timelines are set

Section 9.4 Summary

The PCN contract negotiation process was difficult for every network. PCNs were generally satisfied with their contract, however some, one gets the sense, would like to re-open negotiations if they could.

Some issues such as the outside use rate and capitation rates were identified as contentious from the outset. Others, such as "included" versus "excluded services", and the calculation and attribution of the outside use rate became more apparent once the contract was operationalized. It is likely that these experiences will set the tone for the next round of negotiations.

Questions to Guide Future Decision-making

How can the negotiation process be streamlined in future?

What are the options and mechanisms for addressing the issues identified as most contentious?

What infrastructure is required at the MOHLTC to facilitate and expedite the negotiation and implementation processes?

What mechanisms can be developed to get feedback and input from the primary care physicians?

What mechanisms can be put in place to enhance support to physicians during this transition?

SECTION 10: ENROLMENT

Many physicians identified rostering as the biggest challenge to the implementation of primary care reform. There is general agreement that the enrolment system employed must be improved for implementation of primary care reform on a larger scale. All agreed that the enrolment process was tedious and much more labour intensive than anticipated. For many practices it required evening and weekend work and impinged on administration and patient care time. Even former HSO physicians who had prior experience with rostering felt that the process was onerous.

A great deal of effort and resources were required for rostering patients. A total of $2.3 million was spent rostering patients at the four sites discussed in this section. In some practices, extra staff was hired to assist with rostering. Nonetheless, office staff, and in many instances the physicians, spent several additional unpaid hours on efforts related to rostering. In hindsight, many doctors suggest that it is necessary to invest in support staff to support this process. Some suggest that a per capita reimbursement for rostering might be a more effective approach. (Based on the monies allocated by the MOHLTC, the average cost per estimated rostered patient in this exercise was $8)

There is less financial incentive to roster patients in the reformed-fee-for-service payment system, than the capitation system, unless the physician takes full advantage of the PCR bonus fee codes or rosters more than 2,200 patients. This is illustrated by the fact that Chatham has one of the lowest enrolment rates. The enrolment rate in Chatham is approximately 60% compared to 80-90% in most other sites.[2]

Enrolment strategies varied greatly among PCNs and among practices within PCNs. Approaches to recruitment employed by some sites included:

- Mail-outs
- Telephone calls
- Face-to-face discussions
- Pamphlets
- Posters
- Follow up targeted mailings
- Community meetings
- Open houses
- Radio interviews
- Articles in the local papers
- Alliances with the local hospital

The physicians interviewed were divided on the effectiveness of the initial mail-out of enrolment forms. Patient responses to this approach ranged from 10% to one-third. Some claimed it was entirely ineffective and that this approach was limited by some people's general distrust of government. Others felt it was an effective first step and a good way to inform the population of the reform.

---

[2] It is important to note that in some cases, the actual proportion of patients rostered differs from the roster numbers reported by the MOHLTC that reflect the proportion of patient rostered versus initial roster estimates.

Problems with the mail-out included:

- The need to develop patient lists and addresses in many offices where the patient address was not required for day-to-day operations
- The failure of the mail-out to reach many of the rural addresses
- Incomplete packages, including several empty envelopes
- Confusion about the package contents and the need for further explanation of the rostering package
- Delays in the mail-out
- Availability in English and French only

The approaches that were said to be most effective, yet most time consuming, were face-to-face recruitment at the time of the appointment or telephone calls (either by the administrative staff or the physician). Telephone calls were generally used as a third line of marketing. Some practices prepared the enrolment forms for the patients and asked that they sign the form when they came for a visit.

The main limitations of the two approaches that were identified were:

- These recruitment methods took a great deal of time; some estimated between 10 and 20 minutes per patient
- Face-to-face recruitment cut into patient care time when conducted by physicians
- Face-to-face recruitment cut into other administration time required at the offices
- Face-to-face recruitment mainly allows for frequent users to be approached in the short run. For a capitation system to work effectively from a financial perspective, the rostered patients must consist of a group of frequent and infrequent users
- Telephone recruitment took many hours, including evenings and weekends
- Several of those involved in the telephone recruitment eventually "got burnt out" and often felt they were harassing patients or felt like "telemarketers"

Some of the physicians and other health care providers indicated that they would prefer that the patients roster to the practice or have the option to roster to a nurse practitioner. Some felt that rostering to a physician did not create a team or network atmosphere and this would make it easier if there were part-time team members, or a physician left or retired.

There were some issues identified with respect to the timing of rostering. One of the PCNs started rostering patients before their contract was signed in order to determine the level of acceptance of rostering. The PCN was not aware that once the patient enrolment form had been signed, dated and submitted to the Ministry that the payment mechanism would immediately shift from fee-for-service to capitation. This had financial implications for the physicians. A physician at another PCN also reported getting an early start on the rostering process. However, in this case, enrolment forms were signed and submitted to the Ministry without dates. Once the PCN contract was finalized, the Ministry recorded the date of the establishment of the PCN on the patient enrolment forms.

There are a few physicians who delayed rostering patients who had high care needs until closer to the end of the rostering process. It was felt that under fee-for-service these patients increased revenue, however under the capitation model they decreased profitability. On the other hand infrequent users were more attractive under capitation.

There were no family forms; so for a family of five, five roster forms and five consent forms (ten forms in all) had to be completed. This was a major disincentive to completing the forms.

Overall, there were concerns expressed about the level of English required to complete the forms, the complexity of Consent to Release Personal Health Information (the blue consent form) and the lack of understanding on the part of the patient with regard to their responsibility as a rostered patient, namely to receive their primary care from their rostered doctor. With regard to the consent form, some patients expressed concern that the government would get access to their medical records. As well, there was additional confusion and time delays created by separating the enrolment from the access to information consent process.

The rostering process has additional resource implications for practices with high proportions of patients who are new immigrants or for whom English is not the first language. One such PCN noted that patients did not respond well to the written material and that a lot of one-on-one interpretation in the office was required. In these offices, staffs were not able to use the Ministry prepared letters, forms and brochures written in English. They had to translate the key points of the material in a language that the patient could understand. This translation role often fell to the physician if he/she was the only one in the office that spoke the patient's particular language. Patients experiencing language barriers frequently called the physician or presented at the office with questions of interpretation about information they had received in the mail from the Ministry. One physician's office reported that 80% of patients that got consent packages came in to the office with questions.

Another issue that has been identified in practices with a high proportion of immigrants is the need to be sensitive to attitudes and perceptions about government. Some immigrants have come from countries where due to war, persecution, political strife or other factors there is fear and mistrust of government. These individuals are understandably more sceptical and suspicious of proposed government interventions (e.g. privacy / confidentiality issues). Again, more time was required by physicians and PCNs that had to address these fears as part of the enrolment process.

On a day-to-day basis many offices found it difficult to track and differentiate among rostered and unrostered patients. Offices tried several approaches from marking charts to entering an "R" in the computer records. None seemed to have found a truly effective method.

On the Ministry side, the rostering process was delayed. Some forms sent to the Ministry went missing and there were long time lags between sending the enrolment form and receiving confirmation from the MOHLTC. Many said that electronic rostering would have greatly facilitated the process.

Questions to Guide Future Decision-making

How can the administrative burden of rostering be mitigated?

Should other approaches to rostering be explored, for example:
- Passive rostering whereby physicians identify their active patients and the patients are informed that they are rostered with this physician unless they wish otherwise?
- Rostering to a practice or other health professional

How can the significance of the responsibility of the patient to primarily see the physician they are rostered with be imparted?

How can the process for getting consent to release personal health information be improved? What impact will new personal health information legislation have on this process?

How will patients with unique circumstances be addressed - e.g. they live in a rural area but work in an urban area, they are willing to travel long distances to see their long-term doctor?

What safeguards are required to ensure that all patients have access to a family physician regardless of their clinical needs or other circumstances?

How will the additional requirements and needs related to people who are illiterate or do not speak English as a first language and new immigrants be addressed?

SECTION 11: GOVERNANCE

Under the terms of their Primary Care Network Agreement, all physicians within a network are required to have a written agreement binding them together in some way. Section 2 of the agreement sets out the following requirements regarding governance:

> *"Section 2.1 Governance of PCN Physicians*
>
> *Prior to the signing of this Agreement, the PCN shall establish and maintain a written governance structure, which shall include, but not be limited to, such matters as:*
>
> *(a) The PCN's philosophy and approach to the provision of primary care services that are in keeping with the goals and objectives of the reform as set out in the Preamble to this Agreement;*
> *(b) The PCN's procedure for making any decisions required under or for the purposes of this Agreement; and*
> *(b) The names of the officers, directors and authorized signing officer or officers of the PCN (where the PCN is a corporation) or the managing partner or partners and the authorized signing partner or partners (where the PCN is a partnership).*
>
> ....
>
> *Section 2.5 Form of Organization*
>
> *The PCN shall inform the Minister whether the PCN is a corporation incorporated and validly subsisting under the laws of Ontario or a partnership under the laws of Ontario or an unincorporated association..."*

The governance agreement was a pre-requisite to establish a forum for decision-making. It was also necessary for the PCNs to have a governance structure so that they could be identified as a legal entity for the purposes of contract agreements, identifying signing officers, employing people and sharing assets.

The PCNs' experiences establishing these governance structures have been varied and as such it is important to consider the context of each PCN. All of the PCNs operate as separate practices with separate assets. The only shared asset among the individual practices is a shared bank account for MOHLTC funds for the network.

A template agreement for governance was drafted by the OMA on behalf of the physicians. Some PCNs used this agreement and modified it to meet their needs. Other PCNs had their own agreement drafted.

We reviewed the governance agreements of four networks. All four agreements establish unincorporated associations, rather than partnerships. Outlined below are the provisions of the agreements reviewed to highlight the differences in the governance models selected by the different PCNs.

Section 11.1 Models

1. OMA Template Agreement with modifications

Two of the agreements reviewed followed the OMA template agreement. The OMA template agreement with minor modifications was used by many of the Hamilton PCNs.

The agreement establishes an association. The introductory clauses of the agreement highlight the desire of the signatory physicians to constitute an association to provide a suitable basis for sharing common PCN costs and to set out certain administrative procedures fundamental to operations. The arrangement between these physicians is described as a cost-sharing arrangement.

The agreement establishes:

- The officers of the association and their roles (Chair, Secretary, Treasurer)
- The decisions which require a written resolution of a majority (e.g. expenditures over a certain amount, appointment of a bookkeeper)
- The decisions which require a written resolution of two-thirds of the physicians (e.g. borrowing by the association, policies regarding hours of operations or on-call coverage)
- Provision for the holding of annual meetings
- Provisions for the division of administrative expenses and funds
- Provisions for the withdrawal and termination of physicians
- The requirement to maintain office insurance of $5 million
- The requirement for arbitration in the case of dispute over the terms of the agreement

It is interesting to note that the agreement does not explicitly refer to the PCNs' philosophy and approach to the provision of primary care as indicated in Section 2.1a) of the PCN contract.

2. Association Agreements drafted by the PCNs

Two of the agreements reviewed were drafted by the PCNs themselves. One is still in draft form while the other is finalized. Both agreements are somewhat similar in tone. Outlined below are the provisions of one agreement:

Agreement #1

This agreement was still in draft form. The stated purpose of the association agreement is to:

- Promote the best possible care for all patients treated by the participants of the association
- To encourage, support and facilitate continuing education among the participants and among the profession and the public at large
- To assume responsibility for the collection of all capitation fees for professional services to be rendered by the participants
- To assume responsibility for the accounting and distribution of monies received by the associations

- To function as a PCN in all undertakings and to enter into any agreements with any authorities, public, or academic that may seem conducive to the objects of the association

The agreement establishes:
- Requirements of practice i.e. the patients and charts are the property of individual participants and not the network
- Nurse practitioner services shall be shared equally among the network
- Requirements that participants hold active privileges at specified hospitals and chronic care facilities
- Termination of membership for failure to comply with these provisions
- Officers of the associations such as Chair, Vice-Chair and Secretary
- Provisions regarding leave entitlements
- Provisions regarding practice coverage

3. Comparisons

It is interesting to consider the different approaches taken by the PCNs in developing their governance agreement. Some PCNs adopted the OMA template agreement, which primarily attempts to structure the financial relationship between the physicians and to establish a governance structure for decision-making. The agreement does not refer to the philosophy of the PCN.

By way of contrast, two PCNs drafted a different type of agreement, which focused very little on the financial relationship between the physicians and focused to a larger extent on the philosophy and goals of the PCN and on how physicians will practice and deal with each other.

Section 11.2 Perspectives Regarding the Requirement to Have a Governance Agreement

Opinions on the need for a written governance agreement varied among physicians. Physicians were advised that a formal agreement was necessary for their mutual protection. Some felt this was unnecessary as no mutual assets other than a bank account were shared.

As to the need to have a formalized decision-making process, some physicians felt that this was unnecessary and that they could resolve issues among themselves whereas other physicians (often within the same network) felt that the decision-making process within the network was unclear or needed more structure. These comments highlight the fact that rules established by any governance agreement will only be effective if the organization's members choose to enforce them. Other physicians had no issue with having a written governance agreement.

Section 11.3 Experiences with Governance

All networks have a network leader and some have an executive committee typically consisting of three or four members. Others only have the positions outlined in their agreement (Chair, Treasurer etc.).

Having an executive committee appears to be particularly effective in larger PCNs. In these larger PCNs the executive committee usually meet to review the issues before bringing them to the larger group, thereby simplifying the decision-making process. It is interesting to note that there is no community input into the governance of the PCNs.

The frequency of meetings varies. Some PCNs such as Primacare meet every two weeks while other PCNs meet monthly. Other PCNs meet even less frequently. Factors such as the size of the PCN and having the various offices close to each other or in the same building seem to facilitate frequent meetings.

Most PCNs indicated that their day-to-day operations were not impacted by the governance structure and that they had not yet dealt with some situations contemplated by the agreement (e.g. termination of a member).

Section 11.4 Group Formation and Group Dynamics

One MOHLTC key informant indicated that one of the biggest challenges in moving forward with Primary Care Reform and in finding sites and physicians that were interested in joining was to overcome the barrier of solo practice. Under the primary care model, physicians who had been used to practicing independently were now required to form a network and work in a group with other physicians. A minimum of seven physicians was required to form a network, presumably to make for a manageable one in seven call schedule.

How physicians formed these groups varied. Some had been historically part of a call group. Others had been the only ones who had expressed interest when the idea was first presented. Some practiced in the same office. It is clear that the extent of cohesion amongst the various physicians within a network varied and may be dependent on many of the factors related to group formation.

Many physicians stressed the importance of group dynamics. Some described the challenges of the "group negotiation" process when there are many diverse opinions and differences in the characteristics of the practices that have come together to form the network (e.g. when there is a mix of large and small groups in the network).

Section 11.5 Summary

The importance of an effective governance structure cannot be overlooked. It is important to establish rules for how decisions will be made and how the PCN shall operate. The requirements to have a formalized, written governance structure was a prerequisite of the PCN contract. Most PCNs have followed these requirements. Some PCNs appear to follow the rules outlined in their governance agreements while other PCNs pay less attention to this agreement and operate less formally.

While an elaborate governance structure can be established in a written agreement, it is ultimately up to the signatory parties to enforce the agreement such that the structure is followed. Governance structures may take many forms; some may be partnerships; some may be unincorporated associations. No one form may be ideal for all networks. Ultimately the networks will decide what form they wish to take and follow. The governance agreement is a legally binding agreement. All members of a PCN should ensure that they are aware of its terms and that it has been drafted by someone with the requisite expertise.

Questions to Guide Future Decision-making

Is the objective of the internal agreement clearly understood among all stakeholders?

Is there a role for increased community involvement in governance?

Is there a need for a minimum requirement for physician groups and under what circumstances are exceptions warranted?

What makes a group a group? Is possible to overcome the "solo practitioner" mindset?

What guidance or assistance is needed to help practitioners, who practice individually, to come together to make joint decisions?

SECTION 12: PAYMENT MECHANISMS

Section 12.1 Preamble

There are a number of pros and cons of fee-for-service payment versus capitation identified in the literature. These need to be taken into consideration when assessing the introduction of new payment mechanisms. These are summarised in the table below.

Payment Mechanism	Pros	Cons	Unknown
Capitation	• focuses attention on needs of patient population • incentive to address multiple ailments in one visit • encourages the use of telephone monitoring • allows flexible use of health providers • improved preventative care	• rewards withholding service • rewards referral to specialists • rewards maintaining a roster of relatively healthier patients • incentive not to roster frequent users	• impact on co-ordination and continuity • impact of quality • cost-effectiveness
Fee-for-service	• rewards production • some evidence of higher accessibility	• rewards providing service regardless of need • rewards multiple follow up visits • rewards short encounters • encourages provision of service by physicians rather than other qualified providers	• impact on co-ordination and continuity • impact of quality • cost-effectiveness

In jurisdictions, where there are blended payment models (a combination of capitation and fee for service), the majority of the physicians' income comes from capitation, but other payments are received for:

- additional services outside the capitation rate such as home care
- practice cost allowances
- rural practice supplements
- after-hours supplements

The payment mechanisms in primary care reform are described below.

Section 12.2 Capitation

In the capitation payment system, physicians are reimbursed on the basis of the number of patients enrolled with them. Age and sex adjusted rates are applied to the physician's roster to determine their monthly payment. The capitation payment includes 151 codes from the Schedule of Benefits. Capitation has been the preferred payment model in the pilot sites and all physicians on this payment mechanism are happy with it in principle.

In Ontario, the blended capitation model includes payments for:

- Excluded services
- Non-rostered patients
- Identified preventative services
- Administrative costs
- Rostering costs
- Nurse practitioners (in some cases)

As well, physicians on this payment mechanism are able to bill additional codes established especially for the PCR, including preventative interventions such as pap smears, immunisations, home care, and mammography. In the capitation system, the physicians shadow bill these codes and are paid a lump sum if they meet specified targets.

Claims for services non-rostered patients are billed on a fee-for-service basis up to a hard cap maximum of $30,000 per physician for included services/codes. This amount may be pooled among all PCN physicians.

While, many have experienced an increase in income under the capitation system, most physicians indicate that its greatest benefit has been the increased income stability. With greater income stability, they feel that they are better able to manage and use their time effectively. Some indicated that the capitation payment model was more closely aligned with their practice patterns. Several said they had found it difficult to operate under the fee-for-service-model. Some had wanted to be on capitation but the HSO program was no longer accepting new physicians. PCR presented an opportunity to participate on this payment mechanism.

Other physicians are not satisfied with the current level of remuneration and described it as arbitrary and inadequate. Some think the capitation rate should be higher because management expenses are so high. For some demographic groups (especially the elderly), it was noted that new capitation rates were lower than the corresponding HSO rates.

Some physicians have indicated that they feel that the new payment mechanism has enabled them to spend more time with sicker patients and deal with multiple and more complex problems in the course of the visit, and allowed them to use the telephone more for prescription renewals and routine follow-up.

However, many physicians point out that they are no less busy and that for some, their practice has grown as a result of PCR. Nonetheless, several physicians say they have an improved quality of work life in that they can take vacations and attend CME without fear of losing revenue. They have greater control of their situations especially when they can measure and assess the impact of the changes.

Physicians believe that patient satisfaction has been positively affected by the change and the incentives, as the doctors are now also rewarded for non-direct payment services. "They are rewarded for thinking and managing information, and not just running from room to room."

As well, in some instances the payment scheme has encouraged some doctors with smaller practices to increase the number of patients they see – e.g. from 1,000 to 1,500. In some cases, this has captured patients who previously did not have a family doctor.

The physicians also expressed concern that they still cannot analyze their payment and the impact of this method themselves, as there is no IT system in place. They have to take payments to date on faith.

Section 12.3 Reformed Fee-for-Service

Under the reformed-fee-for-service payment model, physicians are reimbursed for rostered patients on a fee-for-service basis up to a benchmark threshold or notional capitation rate. The benchmark is calculated using the same age and sex adjusted rates as applied to global capitation. In addition, the physician may bill five new fee codes for these patients, including a code for supervision of home care patients. After they have enrolled at least 40% of their patients, they may request to be activated as a PCN and are "active to bill".

Billings for their remaining patients, who are not rostered, are on a fee-for-service basis. The billings for these patients are subject to the OHIP soft cap of $320,000, although the vast majority of billing will be done under the benchmark threshold.

Unlike the capitation payment system, there is little financial incentive to roster patients, unless the physician is willing to put in the time and effort required to enrol more than 2,200 patients and/or take full advantage of the PCR bonus fee codes. This is illustrated by the fact that Chatham has one of the lowest enrolment rates.

Many of the physicians have reported that it is difficult to make these new fee codes work. The physicians have pointed out that the thresholds for the bonus codes are hard to reach and the system is administratively burdensome. For example, in order to prove that a patient has refused a particular service (and therefore exclude them from the denominator) it is necessary to show that the patient has received two letters and a telephone call offering the service. As well, there are other pre-requisites for inclusion, such as time parameters and absence of disease or cancer of the cervix. Many physicians indicated that it was not worth the administrative time required to pursue these bonuses, which could amount to a maximum of $2,200 per intervention annually.

It is also necessary in the course of a visit to determine whether or not a patient is rostered and qualifies for the bonus codes. At this point, this information is not readily accessible to most physicians (as in many cases the IT is not fully operational and in some cases the system doesn't allow for this identification). As well, it is neither preferable nor ethical to provide differential care. Nonetheless, one physician has argued that the fee codes do present an opportunity to earn extra income.

Overall, some physicians have expressed the opinion that they are not convinced that reformed-fee-for-services will work in the long run, and that they would prefer to either go back to fee-for-service or shift to a capitated payment system.

Over the course of the evaluation, a number of issues have been identified with regard to the payment mechanisms for the PCR. As most of the physicians are on the capitation payment system, the majority of the observations below relate to that experience.

Section 12.4 Fee-for-Service and Non-Fee-for-Service Patients

There are mixed feelings about having a mix of rostered and non-rostered patients as part of the practice. While some physicians feel that if they have chosen to be part of PCR that all their patients should be included under this payment mechanism, others indicate that they do not want to coerce patients into rostering.

The situations of individual patients may not be conducive to their committing to receive care from any one physician. Examples of this are patients who live in a rural area, but work in an urban area, or patients with a chronic condition who require treatment immediately should a problem arise and who would go directly to the nearest doctor or walk-in-clinic.

The mix of rostered and non-rostered patients also becomes an issue in areas where there are seasonal residents. In some communities, the size of the population increases substantially in the summer months. The impact of these unique situations needs to be taken into account.

Another problem that may arise with this mixed approach, is that those patients who do not roster with the physician are in a sense "free riders."[3] Although, not rostered, they may experience the same benefits of the rostered patients, such as longer time with the physicians, more telephone follow-up and monitoring, and access to the teletriage line.[4] Physicians questioned on this have indicated that they do not differentiate care among patients based on their enrolment status.

As well, for the rostering and capitation payment approach to work, in theory, it is necessary to roster as many patients as possible. From a financial and time management perspective, the best patient roster is one, which has a mix of frequent and infrequent users. Unfortunately, the rostering method identified as most effective by most practices (face-to-face recruitment at the time of office visit) tends to bring a higher proportion of frequent users into the roster and not capture as many infrequent users. As well, there is a greater incentive for frequent users to identify and roster with a regular doctor. Although the PCN's agreement requires physicians to offer enrolment to every patient in their practice, there are financial incentives to keeping frequent users on the traditional fee-for-service payment mechanism as long as possible.

---

[3] A term used to describe those who construe benefit from others' participation

[4] Although teletriage services are meant only for the rostered patients, most physicians have put the number on their after-hours voicemail systems. As such, both rostered and unrostered patients have access to the 1-800 number.

Section 12.5 Roster Size

There is a high degree of agreement among PCN physicians that there should not be a limit on roster size. Some feel the roster cap is artificial or arbitrary and does not take into account a number of factors such as type of practice, any specialisation on the part of the physician, hours worked, etc. It was noted that some physicians have built their practices over many years and should not have to reduce their practice size in order to participate in primary care reform.

Section 12.6 Outside Use or Negation Rates

One criticism of the traditional fee for service model is that it increases the incentive to over-service the patient population, as it is a procedure-based remuneration model. The capitation model reduces the incentive to over-service one's patient population. Built into the model is a disincentive to under-service patients. For example, if patients leave the practice or seek services outside the practice, physicians are penalized through a decrease in the capitation rate for the patient who has departed the practice or through the use of an outside use negation rate.

The administration of an outside use disincentive differs between the HSO and PCR models. Under the HSO model, a patient's actual outside use is directly related to physician's monthly income. In other words, if a patient uses outside services, the PCN physician's income for that patient is cut in half.

Under the PCR model, the outside use rate was negotiated for each PCN at the outset of the contract. The adjustments to the rate will be negotiated at a later point in time (18 months according to the agreement - although for many, 18 months has passed) based on actual outside usage. In addition, certain types of visits that were considered outside use under the HSO model are not considered outside use under the PCR model.

For many physicians in the capitated payment system, negation rates have been identified as a contentious issue. The negation rate was negotiated separately by each network within a range of 3% to 5%. For some networks, this is a contentious issue. One network's outside utilisation rate is 0.5%, but their negotiated negation rate is 3.75%. Some physicians have suggested that they should qualify for a refund if their outside use is below their negotiated negation rate.

For some rural networks, the possibility of outside use was less of an issue given their geographic location. For others, the proximity of other non-PCN doctors and walk-in clinics increases the possibility of outside use.

Where the negation rate can become even more contentious is where there is differential outside use among practices and physicians within a PCN. In this instance, the practices with low outside use rates are penalised for the practices or physicians that have higher outside use rates. Differential outside use rates within a PCN could be the case for a number of reasons. Firstly, some practices may have made more of an effort during rostering and thereafter to instil the requirement of receiving care from one physician in their patients. Additionally, some physicians' patient populations may be more likely to require or seek outside use than others.

And in some networks where the practices are separated by great distances, one practice may be based close to an urban area and have many patients who work in the urban area, while another practice is located in an rural area much farther from another health care provider. An example of this would be Sydenham (which is close to Kingston and where many of the residents work) versus Sharbot Lake, which is a relatively isolated rural practice.

Many physicians believe that this component of PCR should be abolished completely or until the majority of the province is on this payment mechanism. The main point made in this regard is that the present system does not encourage accountability on the part of the patient and that the patients do not understand the implications of outside use. There is no incentive for the patient to see their PCN doctor exclusively and no remedial mechanisms (apart from de-rostering the patient) if they don't. (Even if there were, physicians have indicated that they do not want to be the enforcers or to be solely responsible for their patients' use of the health care system).

As well, the current reporting system does not facilitate the monitoring of outside use. There is approximately a six-month lag time for the reports, and the reports are not in a format that is user-friendly. With patient consent, reports on each rostered patient's entire utilisation are provided. The information would be more useful were only the outside utilisation of patients summarised.

In the reformed-fee-for-service system, the benchmark threshold applies to the individual physician or can be pooled among the group. Additionally, when a rostered patient is seen by another physician in the PCN, that physician can bill the patient on a fee-for-service basis, and the visit is counted against the threshold of the physician with whom the patient is rostered. This also applies when PCN members of a call group see each other's rostered patients.

Unlike the capitation system, there is no penalty if the patient sees a physician at a family practice, walk-in or private clinic who is outside the PCN, thus creating a perverse incentive whereby if the physician were absent, it is financially advantageous for the physician to have the patient see another physician who is outside the network.

With regard to the abovementioned reformed-fee-for-service payment mechanisms, it is important to note that at the present time, the MOHLTC does not monitor and report on the use of other PCN physicians by rostered patients, and thus PCN physicians' thresholds are currently not affected by the use of other PCN physicians.

Section 12.7 Inclusions and Exclusions in the Capitation Rate

The services provided under the capitation rate and those excluded was also the subject of several discussions with physicians.

Several providers indicated that they believed that one rate "fits all" did not necessarily reflect the unique situations at some networks. The example was given that in the rural areas where the practices were located half an hour or more from hospitals, the practices provided many urgent care services, such as suturing and removal of foreign bodies, as well as other procedures usually performed by specialists or hospital emergency departments. It is the opinion of physicians in these rural settings that recognition should be given to the nature of the services, which they perform. It is important to note that these differences might not only occur among PCNs, but among practices within a PCN.

Nonetheless, some expressed concern at tinkering too much with the established capitation rate. In recognition of the complexity of the formula used to develop the capitation rate, some expressed concern about eroding it and felt the advantage of income stability would be threatened if they were to start removing codes.

Section 12.8 On-call Issues

Concerns about payment issues also arose related to after-hours or on-call services. One concern was in instances where the physicians in a network or in different practices share a call group, but have different patient populations. For example, a physician who has a patient population predominantly in their 20s and 30s is still expected to provide on call care to another physician's elderly patients on a regular basis although he or she would be paid at a rate reflective of a younger healthier population.

As well, there are often grey areas related to the excluded services. For example, while physicians can be reimbursed for obstetrics care, there are a number of services that they may provide related to obstetrics that are included in the capitation rate. This was raised as a concern in instances where the physician is on-call and has to travel to a hospital or institutional setting to provide this type of care.

Section 12.9 Capitation Rate Increases

Several physicians indicated that they felt that they had been let down in the recent payment negotiations. While the physicians indicated that they had been assured that the PCR doctors would be included in any pay negotiations with other Ontario doctors and that an increase in the payment structure would automatically be applied to the capitation rate, the recent 1.8% increase excluded the PCR doctors. Former HSO physicians also pointed out that they were excluded from the recent 3% increase to HSOs.

It should be noted that the PCN agreement provides for the review of the capitation rates 18 months after the effective date of the agreement.

Questions to Guide Future Decision-making

Can remuneration agreements be tailored to suit the unique situations of certain PCNs based on a specified set of consistently applied criteria?

What information is required to assess outside use rates and excluded and included services?

Why are physicians in reformed-fee-for-service less satisfied than those under capitation?

What changes are required for the effective application of the bonus fee codes?

How will issues related to the mix of rostered and unrostered patients in a practice be addressed?

Is a roster limit of 2,200 still appropriate?

Should the differences in proximity to other health services – e.g. specialists, hospitals, walk-in clinics – be taken in to account?

SECTION 13: BUDGETS

The MOHLTC required PCNs to develop and submit budgets for:

- Administration of the enrolment process
- PCN administration
- Information technology
- Nurse practitioners (where applicable)

There were varying levels of satisfaction with the approved budgets and disbursements of funds across the PCNs, although most found the process overwhelming. The most common concern was the delay in approval of funding by the Ministry.

The main challenges identified were:

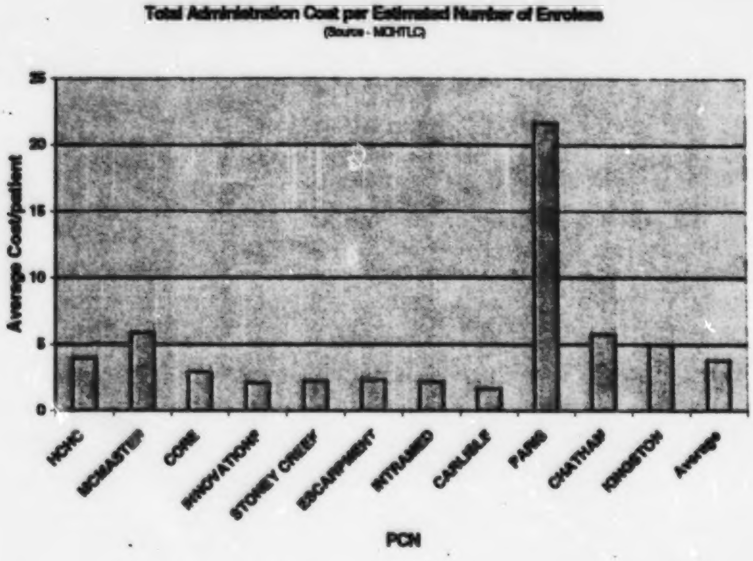
- Few of the physicians or their staff had experience developing budgets
- It was difficult to estimate the amount of time required by each staff member for rostering and administration
- There were no budget templates designed in advance or streamlined processes for the budgets
- In some instances, budgets were required once a month, this was very time consuming
- The acceptance of the budget was unpredictable
- The timing for the payment of invoices was unpredictable
- The physicians were not notified when funds were disbursed or what the funds released were for
- It was difficult to divide the PCR funds amongst the offices in the network
- There were a number of additional costs related to IT problems that they did not anticipate

Some PCNs identified the advantage of doing the budgeting locally and crafting their own approach, but they expressed concern that they still had to get MOHLTC input and approval on every line item, and that all or part of the budget would be sent back for revisions. Concern was expressed over the long delays for response to budgets. It was felt that the MOHLTC micro-managed this process. Several of those interviewed felt that a global budget should have been established either for a task – e.g. amount for patient rostered – or annual administration.

Many PCNs hired an accountant to manage the joint PCN funds and disburse funds to individual physicians as required. Individual physicians were reluctant to take on this role as they felt that they were neither skilled nor interested in the budgeting process.

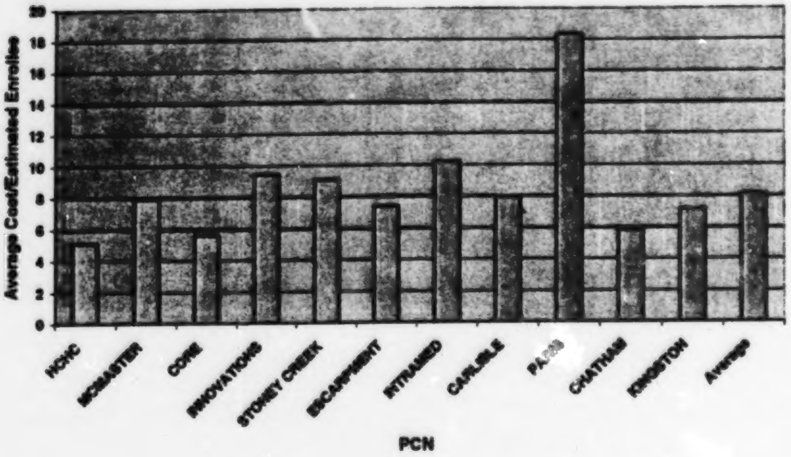
Some physicians did not feel that the budget for start-up and planning was adequate. For example, it was felt that compensation for an administrator was inadequate as most thought a full-time administrator was needed for the significant administration component of a PCN. Nonetheless, individual physicians were of the opinion that the budgeting process was acceptable and the MOHLTC was fairly flexible in allowing them to increase their budget if necessary.

The graph below illustrates the administrative costs on a per patient basis.

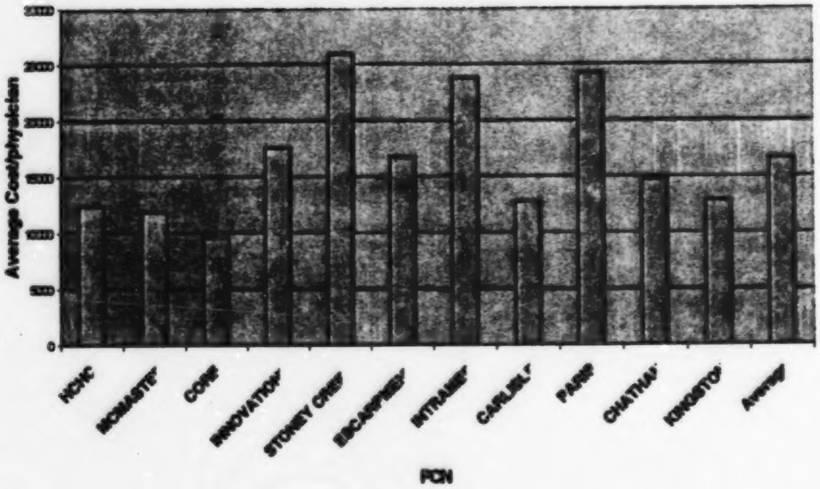


The MOHLTC approved $2.3 million for enrolment at the four sites discussed. This included salaries and wages as well as one-time costs. Some PCNs indicated that while the level of support for rostering might have been appropriate for mail-outs, it was not sufficient for one-on-one interactions with patients, which most PCNs found to be more effective than mail-outs. Other PCNs felt the budget was sufficient. The average cost per projected enrolee was $8.82; the enrolment costs ranged from $5.11 to $18.36 per projected enrolee. The average cost per enrolment physician is $16,663. Cost of enrolment per physician ranged from $9,571 to $25,936.

Total Enrolment Cost Per Estimated Number of Enrolees
(Source - MOHLTC)



Total Enrolment Cost Per Physician
(Source - MOHLTC)



In most instances, it was felt that the initial nurse practitioner budgets were insufficient. Start-up budgets for nurse practitioners sometimes failed to take account of a number of important items including:

- Office space for the nurse practitioner
- Filing space and filing system
- Equipment and supplies required for home visits
- Patient literature

- Mileage and parking for home visits and trips to physician offices
- Photocopier (e.g. to copy literature for patients)
- Fax machine
- Computer license

In two instances, the nurse practitioners spent twice the amount of their start-up budgets.

Questions to Guide Future Decision-making

What lessons can be learned from the budgeting process?

Can standardised budget templates be developed to facilitate the budgeting process?

Should the rostering budget be based on a per capita basis i.e. a set amount per rostered patient?

How can the budgeting skills of physicians be enhanced?

SECTION 14: STAFFING AND MULTIDISCIPLINARY INVOLVEMENT

This section outlines the roles in the PCN of the site leader, administrator, administrative staff, and other health care providers.

Section 14.1 Site Leader/Network Leader

All of the PCNs have a network leader. In Hamilton, where there are eight networks, in addition to network leaders there is also one overall site leader.

In some PCNs, the site/network leader was elected. In other PCNs, the network leader assumed this role almost by default as he or she was the champion and driving force behind the network being selected as a pilot.

All of the leaders acknowledged that the time commitment involved in being the leader was much greater than they had anticipated. During the start-up phase, they would spend on average four to ten hours per week on network administration related tasks. Now they spend an average of one to five hours per week.

A great deal of time was spent liaising with the MOHLTC. Some physicians commented that the MOHLTC sometimes expected them to deal with them on short notice. It was noted that it was difficult to deal with the MOHLTC in the middle of the day due to patient commitments.

Some of the network leaders felt that they were unqualified for the tasks and that the other physicians in the network took little interest in the administrative components. It is important to note that most of the network leaders are physicians. For the most part, they do not have a great deal of management experience, nor accounting skills. In some cases, they have limited leadership experience. Many found the learning curve steep. Given that this was a pilot project, it was often unclear what was expected of them.

Section 14.2 Administration/Administrative Staff

All of the PCNs have administrative staff who have been involved in PCR. Some PCNs have hired dedicated site administrators.

All of the PCNs indicated that the implementation process and especially rostering was a lot of work and required additional resources. Some brought in administrative staff into the PCN on a part-time basis or increased the hours of existing staff. Some of the larger PCNs hired full-time site coordinators to assist with the daily operation of the PCN.

Section 14.3 Other Health Care Providers

While some PCNs have access to other types of health care providers (such as social workers, dieticians, physiotherapists) in their building, very few have them in their practice. Of the networks that do have other health care providers in their own practice, many have been able to take advantage of additional sources of funding to pay for these resources. For example, some of the former HSO practices in Hamilton receive community outreach funding through St. Joseph's Hospital for part-time assistance from a social worker, psychiatrist and dietician.

Most PCNs have at least one nurse if not more. The Carlisle PCN has a multidisciplinary team consisting of 6 FTE nurses, 1 FTE social worker, a chiropodist and a part-time psychiatrist. The nursing roles include triage, lactation consultant, diabetic counselling, parenting courses and babysitting courses. The multidisciplinary staff are funded through the Institutional Substitutions Program.

McMaster PCN has some multidisciplinary staff funded by the hospital and others funded by the Institutional Substitution Program.

Section 14.4 Summary

The role of site/network leader is difficult and time consuming. Some of the site/network leaders feel they lack the administrative skills required and feel very isolated in the performance of their duties. In addition, in the absence of funded positions, there is limited involvement of other health care providers in the primary care networks.

Questions to Guide Future Decision-making

Will it be possible to continue to find physicians willing to balance a full-time practice with site administration responsibilities?

What are the opportunities to streamline the administrative components of the PCN?

How best can the managerial and accounting requirements of the PCN be met?

How will the administrative component of PCR be funded?

What is the appropriate level of funding to support the MOHLTC's goal of increased multi-disciplinary involvement in primary care?

With an increased number of multi-network sites arising from the provincial roll-out, is there a need for regional leadership for the PCNs?

With the commitment to accelerate the process of implementing PCR in the province, is there a need to find structured ways to deal with on-going administrative issues as they arise?

SECTION 15: NURSE PRACTITIONERS

The following section examines the role of nurse practitioners within the primary care networks.

Out of the recommendations of the Provincial Nursing Task Force, the MOHLTC funded nurse practitioner positions for PCR. Of the seven nurse practitioners working in the pilot sites, two are funded directly through the primary care program. The remaining five nurse practitioners are funded through an initiative stemming from the provincial Nursing Taskforce recommendations. Of the seven nurse practitioners working in the PCNs: three work in Hamilton, two in Kingston and one in Paris and one in Parry Sound. It is interesting to note that in Paris, one nurse practitioner was funded out of the federal Health Transition Fund monies, which have now expired. The physicians are now sharing the cost for this nurse practitioner among themselves.

Many of the nurse practitioners have at least a decade of nursing experience. Two practised outpost nursing. Many have areas of specialty such as wound care, obstetrics or women's health. All of the nurse practitioners are female.

Under the terms of the MOHLTC funding agreement, the funds for these positions are paid directly to the PCN. To obtain these funds, the PCNs had to apply for the position and submit an operating budget. The MOHLTC also developed guidelines for the nurse practitioners in the PCNs. Under the primary care reform model, PCNs that employed nurse practitioners were permitted to increase their roster limit by 800 patients.

In addition to these positions, some PCNs that converted from HSOs had existing nurse practitioner positions. These are funded through the Institutional Substitution Program.

Nurse practitioners joined the networks at different times. Some have been with the networks for at least a year and others for only a few months.

There are currently no nurse practitioners in the reformed-fee-for-service model and thus no information has been collected about their role in such a model. One nurse practitioner has been funded for Parry Sound (a reformed-fee-for-service PCN) but has yet to be hired.

Section 15.1 The Role of Nurse Practitioners

Nurse practitioners (Registered nurse- extended class) were empowered by legislation in 1997 to perform "extended" duties over and above those that may be performed by a registered nurse. Officially these nurses are called "registered nurses- extended class" [RN (EC)], the extended class referring to the new class of certificate created for this position. Colloquially they are often referred to as nurse practitioners. Nurse practitioners have the authority to communicate a diagnosis, order specified tests such as diagnostic ultrasound or x-rays, order electrocardiograms in non-acute circumstances, prescribe and administer specified drugs and order specified laboratory tests.

A nurse practitioner in a private practice setting may perform these duties independently of a physician as they are within her own scope of practice. Within a hospital setting, some restrictions are imposed by legislation governing public hospitals.

The role of nurse practitioners in PCR has varied greatly. Their role varies among PCNs and among physicians with whom they work.

It is important to understand the full extent of the role played by nurse practitioners within the PCNs. Especially in some of the rural PCNs, nurse practitioners have played a large role in preventative care for women. Often being the only female member of the team, women and teenagers have come to them for pap tests and to discuss issues around sexuality and birth control. Many nurse practitioners are involved in community outreach and education and to this end have arranged flu clinics, osteoporosis lectures, and bereavement counselling sessions. Many nurse practitioners sit on community boards.

Section 15.2 Nurse Practitioner Perspective

According to one physician, "*She really functions as an equal; side by side with the doctors.*" This is not representative of the role of all of the nurse practitioners in the PCNs. Their experience ranges from being treated as an equal partner or colleague, carrying their own patient caseload, providing the full range of services that they are empowered to perform, and participating in the call group to providing a limited scope of services.

The ratio of nurse practitioners to physicians ranges from 1:21 to 1:7 within the Hamilton PCNs. In the Paris PCN, one nurse practitioner works with three physicians and the other works with four physicians. In the Kingston PCN, one nurse practitioner works with one physician and the other works with two physicians.

Nurse practitioners across the PCNs perform a wide range of functions. Most do well-women and well-baby exams and treat minor ailments. Many do home visits. Some nurse practitioners target certain patient populations such as the frail elderly and diabetics. Most of the nurse practitioners have a role in community outreach and education. Very few do suturing and one nurse practitioner takes call alone. Nurse practitioners with special expertise such as pre-natal care or wound care also see patients requiring this skill set.

In terms of number of patients seen, the range varies from 16 patients per week to as high as 30 patients per day.

Many of the nurse practitioners indicated that they did not feel they were operating within their full scope of practice and wanted to deal with more clinically complex cases. They indicated that they wanted to work in collaboration with the physicians, not be supervised by them. Many wanted to carry their own patient caseload.

Most nurse practitioners felt that their role was cost-effective to the health care system in the long run, as their role helped to improve the health status of patients.

The nurse practitioners interviewed shared the following insights.

a) Location

All nurse practitioners speak to the difficulty of juggling multiple offices and working with multiple physicians and multiple personalities. One nurse practitioner who works with many physicians commented that her ideal situation would be to have what she termed a "joint practice". One in which – as part of a team with access to their advice – she has her own patient load, follows up on her own patients and treats clinically complicated cases. Some nurse practitioners commented that they lose the continuity of care with patients. For example, because they are at other offices, they often do not get to follow-up on their patient's laboratory results when they arrive, or they are not available at a particular office when a patient would like to see them.

If the nurse practitioner does work with multiple physicians, it is necessary to have a home base office to at least feel grounded. Space limitations in some offices has been a barrier to achieving this in some cases, for example one nurse practitioner in Hamilton has established her office in her home.

b) Integration into Practice

Many of the nurse practitioners do not feel that they are part of a multi-disciplinary team. They feel more like a resource. The following examples were cited:

- Some nurse practitioners are limited in their ability to use the PCN IT system for reasons such as lack of software licences, lack of passwords, different system for nurse practitioners than in the physician's office
- Not all nurse practitioners have been invited to participate in regular PCN meetings
- Some nurse practitioners identified a need for more adequate budgets and greater involvement in the budgeting process

c) Fee Codes

Nurse practitioners do not bill any fee codes. As a result, the billing system does not capture their practice information in the way that it captures practice information for physicians. This issue became readily apparent when nurse practitioners, as part of their yearly evaluation, were required to provide the MOHLTC with practice information such as the number of patients seen, the number of consultations and referrals to general practitioners and specialists, and the number of referrals for tests. They had to manually locate such information.

In the absence of this information, one nurse practitioner is currently developing assessment tools so she can map her effectiveness.

Under the Institutional Substitution Program there is one code to record everything the nurse practitioner does.

Section 15.3 Physician Perspective

Use of the full range of the nurse practitioners' skills varied from physician to physician. Even within the same network, some physicians were more likely to have the nurse practitioner handle more clinically complex cases than others.

Most of the physicians we spoke to were glad to have the nurse practitioner's assistance. Some indicated that having a nurse practitioner freed up their time to deal with more complex cases. However, one concern about utilizing nurse practitioners for all the simpler encounters leaving the physicians to deal only with difficult cases is that some physicians want to handle a variety of cases and find it more stressful to have only a complex caseload. One physician said that she enjoys seeing patients when they are well because otherwise she misses out on the joyous parts of patient's lives.

Few physicians felt that it would be financially viable to have nurse practitioners as part of a PCN. However, some commented that this was limited by the current ratio of nurse practitioners to physicians; many physicians felt that the nurse practitioner in their PCN was spread too thin and it might be better to assign her to fewer physicians in the PCN rather than all of them. Ultimately this is the network's decision. Others felt that the cost-effectiveness of having a nurse practitioner would only be seen in the long-run when the benefits of improved preventative care take effect on the health status of the population.

There were a number of physicians who were not convinced that nurse practitioners were cost-effective. Many said that having a nurse practitioner in their practice was not financially viable. Nurse practitioners see fewer patients per hour than physicians, and some physicians believe that the additional patients seen by the nurse practitioner does not offset the nurse practitioner's salary. Some of these physicians also felt that in their primary care setting an RN or RPN was more cost-effective.

Some physicians also pointed out that there were overhead costs associated with having a nurse practitioner on the team. These included additional office space, administrative costs, and physician supervision time.

A few physicians who had a nurse practitioner noted that they might be more critical of the cost-effectiveness of nurse practitioners if they were paying for the nurse practitioner on their own (instead of with MOHLTC funding). Some doctors see the nurse practitioner as ancillary and would not want to pay for the service. Another concern in some PCNs is that since nurse practitioners cannot help with on-call coverage, they would prefer to add another physician to the practice.

One physician said she would be happy to pay for a nurse practitioner on her own and just break even however, the nurse practitioner salary range limits the ability to do this.

Section 15.4 Patient Satisfaction

Many nurse practitioners reported a high level of patient satisfaction with their services. According to the nurse practitioners interviewed, patients liked seeing them because they felt less rushed than when seeing the physician and felt that the nurse practitioners often spent more time explaining procedures to them.

Focus Group participants who had been seen by a nurse practitioner consistently stated that they could more easily get information and assistance for their primary care from the nurse practitioner. The nurse practitioner generally had more time to spend with patients. They were also more available to see patients than the doctor. In all locations, patients' comments indicated that the availability of a nurse practitioner was a positive step in improving the provision of health care. Patients in Carlisle felt that there should be more nurse practitioners introduced throughout Ontario's primary care system. Participants in the Kingston PCN also wanted increased access to their part-time nurse practitioner.

Section 15.5 Summary

It may be too early in the PCN experience for nurse practitioners to be able to fully function within their scope of practice. Both patients and physicians appear to be supportive of their role. However, some physicians are less willing to allow nurse practitioners to take on greater responsibility and more clinically significant cases.

Many factors appear to impact upon the role the nurse practitioner is permitted to play. The role depends on:
- Level of experience of the nurse practitioner (e.g. new graduate versus veteran)
- Number of physicians in the PCN
- The physician's level of support for nurse practitioners
- Previous experience of the physician with nurse practitioners
- Number of offices in the PCN that the nurse practitioner has to cover
- Proportion of female physicians in the practice
- Demographics of the patient population
- Needs of the patients that visit the practice

Additional concerns have been raised by physicians as to the cost-effectiveness of the nurse practitioner's role in their practice. In addition to relying on PCR funding, some PCNs that were part of the former HSO program rely on multidisciplinary staff funded through the Institutional Substitution Program. The future of these grants will have an important impact on the sustainability of these services being provided by PCNs.

As a final point, many nurse practitioners do not feel fully integrated into the PCN team. In many cases, the number of locations the nurse practitioner has to service impacts upon her satisfaction and sense of belonging to a team as well as upon the continuity of patient care.

It is important to note that an evaluation of the nurse practitioner role in the provincial health care system is planned in follow-up to the Nursing Task Force Report.

Questions to Guide Future Decision-making

If some physicians believe that nurse practitioners are not financially viable, is the current model sustainable? Will physicians hire nurse practitioners in the absence of Ministry funding?

How can physicians be better educated about the potential roles and abilities of nurse practitioners?

How can physicians concerns about delegating to the nurse practitioners be allayed?

Is there an ideal ratio of nurse practitioner to physician?

Should billing codes be developed for nurse practitioners such that their practice information can be captured?

How can the impact of the nurse practitioner's contributions be evaluated?

How can the experiences of the practices that have nurse practitioners be shared with others?

Are nurse practitioners more viable in a capitation or a reformed-fee-for-service model?

SECTION 16: PROVIDING PATIENTS WITH 24-HOUR ACCESS TO CARE

The pilot PCNs use three strategies to ensure that rostered patients have access to care 24 hours per day, seven days per week:

- Extended office hours
- Teletriage service
- Physician on-call coverage

According to the Primary Care Reform Information Package developed by the MOHLTC and the OMA, *"PCN's must agree to provide extended hours of care that cover both weeknights and weekends. These hours will be negotiated with each site, but must include some evening and weekend coverage. Weeknight coverage should be available in at least one PCN location from 5:00 - 9:00 p.m. Weekend office hours will be determined by practice type and population need."*

According to the PCN Global Agreement, *"the PCN Physicians and Affiliated Physicians shall provide PCN Services during regular daily office hours, except during statutory holidays, and during evening and weekend office hours at the locations and times to be determined and made known to patients. The PCN and the Primary Care Program Director may amend, in writing, the office hours set out in this section."*

The agreement requires the Network as a whole to offer these extended office hours. Thus, only one office in a network needs to provide extended office hours.

The Primary Care Network Agreement does not set any expectations for collaboration of physicians working in PCNs other than the requirement for a formal governance agreement that includes a clinical philosophy, the need for a decision-making structure and on-call arrangements.

Section 16.1 Extended Office Hours

Information on office hours in the pilot PCNs was gathered from each office in a brief "Office Start-Up Questionnaire". Information on hours of operation was also gathered through site visits and review of PCN documentation. Hours of operation were obtained for **28** out of 77, or one-third, of the PCN offices. Of the 28 offices that replied, 40% are open after 5:00pm. As noted above, only one office in each network needs to offer extended hours to meet the requirements laid out in the PCN agreement.

The total hours of operation per week for a PCN office ranged from 20 hours to 50 hours. The average is 37.4 hours per week.

All PCNs have arrangements in place for after-hours coverage, except Chatham where each doctor or practice takes responsibility for his/her own calls in instances where their patients are hospitalized. Typically, an on-call schedule is developed and the number of times per month that a physician is on-call depends on the number of physicians in the PCN or practice. For example, physicians in the largest PCNs, Innovations and Escarpment, are on-call once every 23 days and every 21 days respectively. Innovations is also experimenting with having the nurse practitioner assist the physician on-call on afternoons when several offices are closed. In contrast, in the Kingston PCN, one office has a one in four call schedule.

Within some PCNs there is more than one on-call group. This is often based on geographic location and practice size. For example, McMaster PCN has an on-call group for each of the two offices in the network. Core PCN has two on-call groups, one for the physicians in the largest office and one for all of the other physicians in the PCN.

Stoney Creek and Mountain PCN has two on-call groups, one for the 13 physicians in Stoney Creek and another for the three physicians on the Mountain. These arrangements are reportedly more structured and cohesive than the pre-PCR on-call arrangements. The Stoney Creek physicians also staff an After Hours Clinic at the St. Joseph's Community Health Centre. The clinic hours are 5 p.m. to 9 p.m. from Monday to Friday, and 10 a.m. to 3 p.m. on weekends and holidays. When a physician is on-call, he or she will be physically based at the clinic when it is open and be available by telephone for the rest of the evening or weekend. The St. Joseph's Community Health Centre provides the infrastructure support for the After Hours Clinic (e.g. office space, computer, secretarial support).

There are three call-groups in Kingston. These are Sydenham and Verona; Tamworth and Newburg; and Sharbot Lake. These clusters are based on geographic proximity and historical agreements.

Some physicians report that the opportunity to share on-call with a larger group has been one of the benefits of primary care reform because it reduces the burden on individual physicians and improves lifestyle.

Other physicians report that their on-call responsibilities have not changed because they were part of the same on-call group prior to primary care reform. Some of these pre-existing on-call groups were natural groupings of physicians that worked in the same location (e.g. Carlisle, HCHC and Paris). However, in Hamilton, there are a number of examples of groups of solo practitioners in different locations that came together, on their own initiative, to share on-call coverage before the advent of primary care reform.

One of the concerns that has been raised about broader on-call coverage arrangements is the diversity of patient profiles found in different practices. From a clinical point of view there are concerns about having responsibility for patients for whom the physician is not familiar. From a financial point of view, there are concerns under the capitation model about being reimbursed based on the individual physician's patient profile but having to provide after-hours care to patients with different profiles and therefore a different capitation rate. For example, one physician who raised this issue is paid based on a relatively young practice (low capitation rates) but must provide on-call care to a high proportion of elderly patients (high capitation rates). Some networks address this issue upfront by seeking to affiliate with physicians who have similar patient profiles and practice styles.

Section 16.2 Teletriage

Background

The ON-Call Healthline has been established to provide rostered patients in all of the pilot primary care networks with access to an after-hours teletriage service. The service is managed and provided by MedCan Health Management Inc. which employs experienced, registered nurses to provide telephone advice to rostered patients. The teletriage service operates from 5 p.m. to 9 a.m. on weekdays and 24 hours on weekends and statutory holidays. Rostered patients can access the teletriage service by calling a toll-free number.

PCNs do not pay for the teletriage service. Each PCN receives $2000/month to ensure physician on-call availability after hours to the teletriage service.

The teletriage service does not eliminate the need for physicians to have an answering service. Many offices close one or two afternoons per week (usually Wednesdays and/or Fridays). Since the teletriage service is only operational from 5 p.m. to 9 a.m. there may be a gap between closure of the physician's office and the start of the teletriage service. The messages on office answering machines differ. Most inform the patient of the hours of operation for the teletriage service but some do not, and direct the patient to call the ON-Healthline even when it's closed.

MedCan provides the Ministry with detailed monthly reports on teletriage utilization. The purpose of this section is not to replicate those detailed statistics but rather to focus on physician perceptions of the teletriage service. Some utilization statistics are included to provide context and to begin to look at the potential impact of teletriage on utilization of other health care services.

The latest MedCan report available is for the month of December 2000. At that time, the teletriage service was being used by all of the active PCN pilots except McMaster which is still fairly new. Chatham is not yet making full use of the teletriage service.

Between October and December 2000, rostered patients were made aware of the teletriage service through a message on their physician's answering machine, or directly from their physician's office. Standard promotional material to advertise the teletriage service in PCNs across the province was not available until March 2001. Therefore, the impact of the promotional material on utilization is not reflected in the statistics in this section.

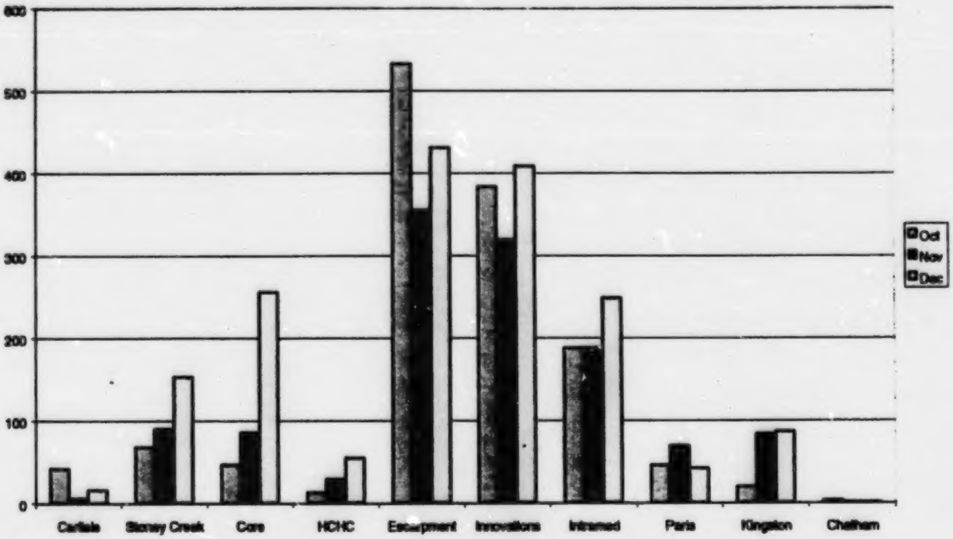
Utilization

The most striking feature of teletriage utilization to date has been the high volume of calls. MedCan reports that they are receiving 203% of calls estimated in the telephone triage contract. Due in part to the Christmas holidays, the volume of calls in December 2000 surpassed volumes in previous months. The busiest day overall was Boxing Day.

Between October and December 2000, rostered patients made a total of 4,840 calls to the teletriage line. The number of calls per month decreased from 1,582 calls in October 2000 to 1,363 calls in November 2000 and then increased to 1,895 calls in December 2000.

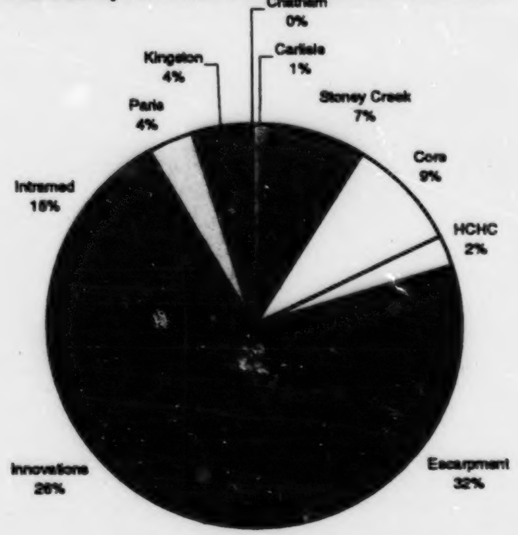
The graph below shows the number of calls, per month, by PCN.

Number of Calls Per Month, By PCN - Oct to Dec 2000



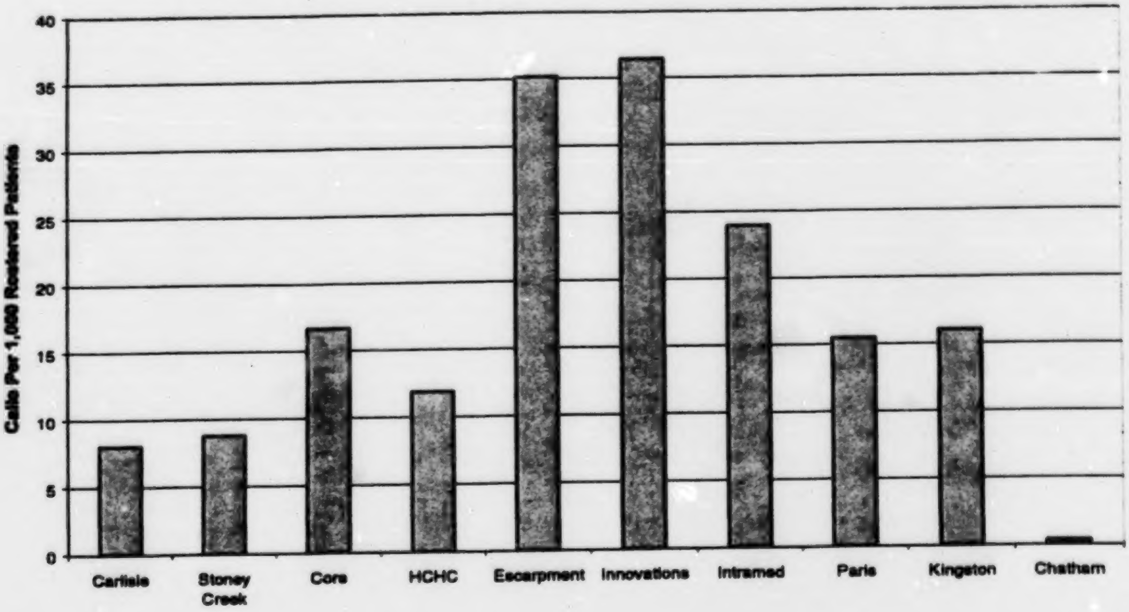
This graph illustrates the proportion of calls to the teletriage line from each PCN. Not surprisingly, the largest PCNs account for the highest proportion of calls.

Total Calls by PCN for the 3 Month Period Oct to Dec 2000

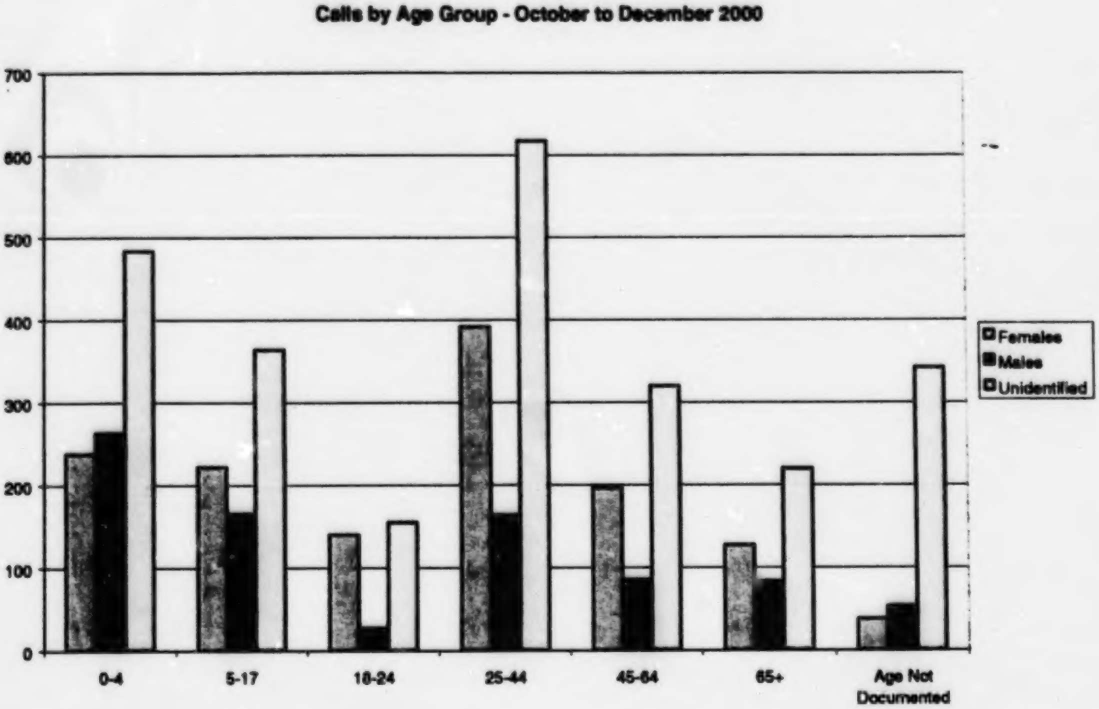


Because PCNs vary in size, it is important to account for size variations when reviewing the utilization statistics. The graph below shows the total calls per number of rostered patients for each PCN. Interestingly, the rankings are the same as for the absolute volume of calls.

Total Calls Per Thousand Rostered Patients, by PCN, for the 3 Month Period Oct to Dec 2000



Gender was documented for 2,192 calls. Of these, 62% of the calls were made by females and 38% of the calls were made by males. The graph below shows the age distribution of callers/patients according to gender.

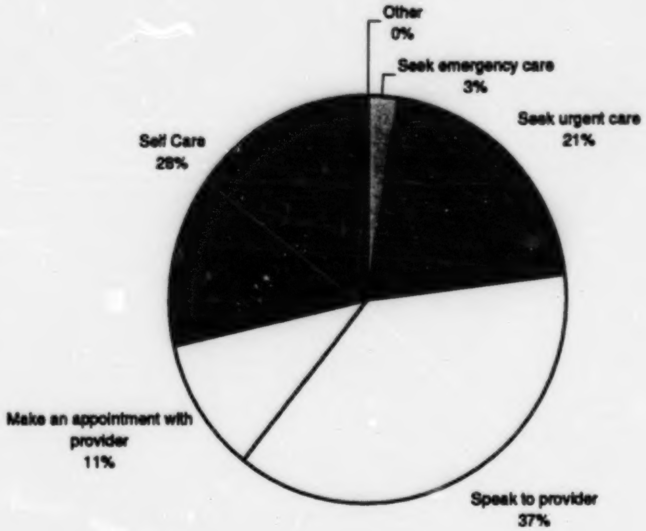

Calls by Age Group - October to December 2000

About 80% of calls made to the teletriage line were symptomatic or illness related. The top ten reasons for calls from October 2000 to December 2000 are listed below. These data are based on the number of times a particular type of algorithm was accessed.

1. Pediatric upper respiratory illness
2. Paediatric ear pain
3. Adult sore throat
4. Adult upper respiratory illness
5. Adult abdominal pain
6. Paediatric vomiting
7. Paediatric cough
8. Paediatric skin rash
9. Adult cough
10. Paediatric sore throat

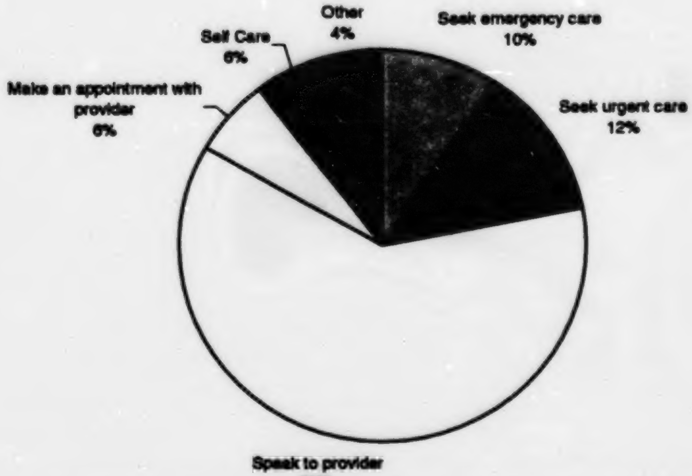
The graph below illustrates what the teletriage nurses advised symptomatic patients to do.

Advice Given to Symptomatic Patients - October to December 2000



This graph shows what callers reported they would have done if they did not call the teletriage service (i.e. caller pre-intent). Pre-intent information was collected from 3,910 callers.

Caller Pre-Intent - October to December 2000



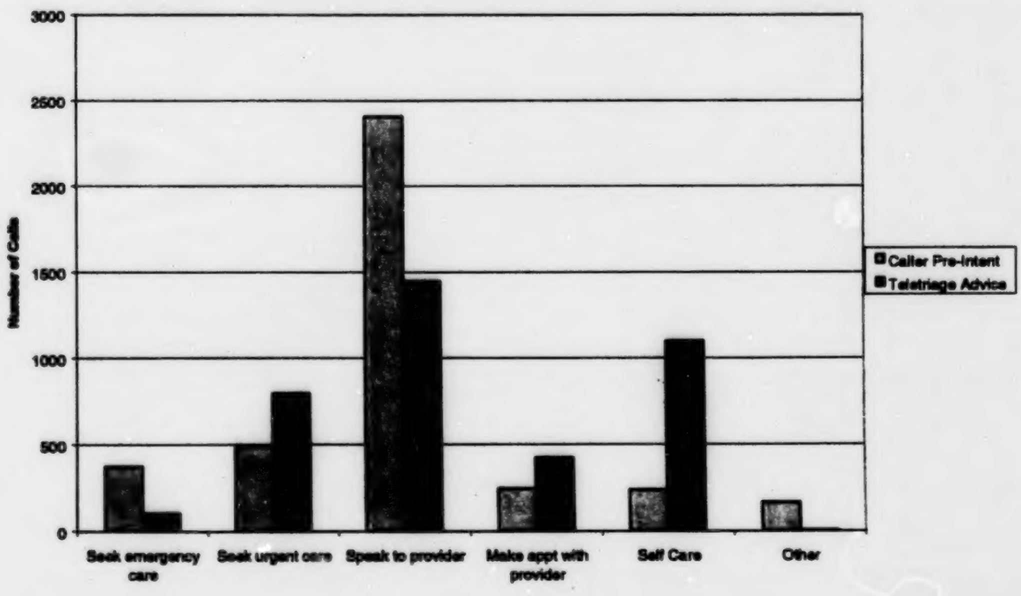
From a policy perspective, a comparison of caller pre-intent and teletriage advice is important because it informs the discussion of whether the teletriage service has contributed to more appropriate use of the health system. Specifically, there is great interest in whether a teletriage service can reduce inappropriate visits to hospital emergency departments. Although three months is not a very long study timeframe, data for the first three months of operation of the teletriage service suggests that the service has redirected callers to different care options than they would have otherwise sought.

The majority of callers had a different pre-intent than the advice they received from the teletriage nurse. Only 12% of callers who had intended to go to the emergency department were advised to do so by the teletriage nurse. The graph below shows that from October to December 2000, 375 callers said they were planning to seek emergency care. Only 102 callers were actually advised by the teletriage service to seek emergency care.

The graph also shows a large variation between the number of callers who were planning to call their provider (i.e. physician) and the number who were actually advised to contact their provider. This is consistent with the observation by some physicians that the teletriage service has reduced the number of after-hours calls they receive.

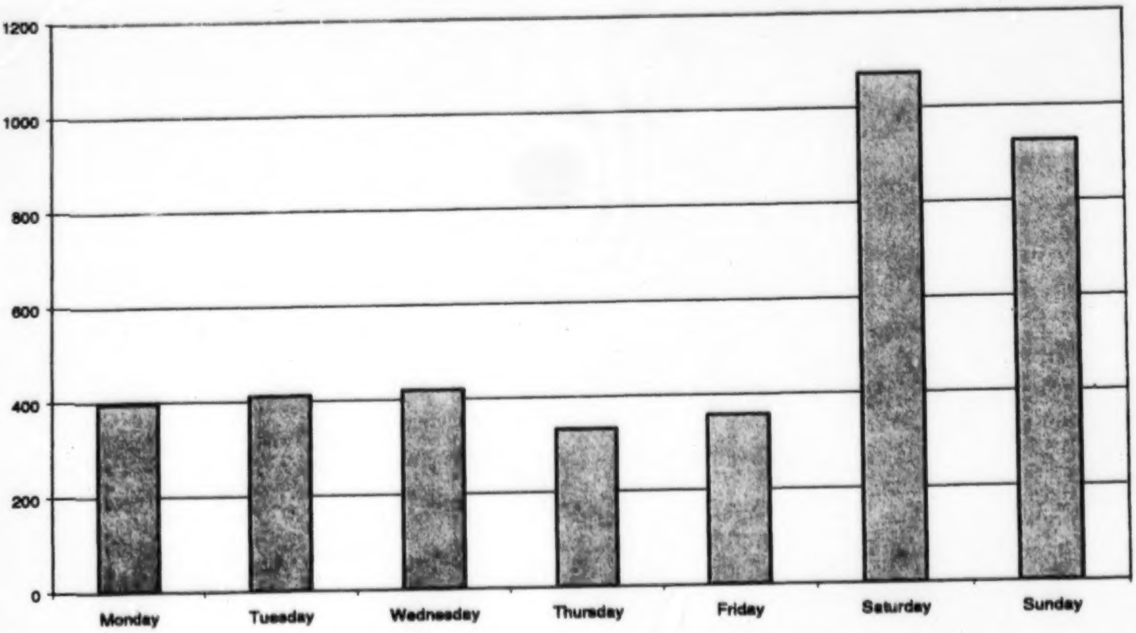
Data are not available on whether or not callers actually followed the advice of the teletriage service. The extent to which callers agreed with the teletriage advice varied depending on what type of advice was given. For example, 73% of callers told to seek emergency care agreed with the nurse compared to 87% of callers who were advised to provide self-care and 98% of callers who were advised to call their physician.

Comparison of Caller Pre-Intent and Teletriage Advice - October to December 2000



The graph below illustrates the distribution of calls according to day of the week. Saturday was the most popular day for calls. Although many physician offices close early on Wednesdays and/or Fridays, the volumes for those days are similar to volumes for other weekdays.

Calls by Day of the Week - October to December 2000



Section 16.3 Physician Experiences with Implementation of Teletriage

The teletriage service has been promoted as a key feature of primary care reform. As such, many physicians expected the service to be available much sooner. A few PCNs were in operation for 18 months before the introduction of the teletriage service. Some patients were told about the teletriage service when they rostered, but it took so long for the service to become operational that the patients forgot about it and had to be informed again. The name of the service also changed over time. Originally the teletriage service was called the Telephone Health Advisory Service or T.H.A.S. Some of the PCNs that were keen to promote the service to their patients publicized it under this name (e.g. in newsletters). The change of name to the ON-Call Healthline may have caused some confusion.

PCNs used a number of methods to inform their patients about the introduction of the teletriage service. The most common methods were: a message on their answering machine after hours, posters in the waiting rooms, newsletters and one-on-one discussion with patients. Standard promotional materials for patients were promised to PCNs to help them publicize the teletriage service. Due to delays in Ministry approval and at MedCan, promotional material was not available until March 2001. A brochure is now available for patients coming into the office that provides the teletriage phone number and a bit of background about the service. Some physicians expected that letters would be mailed directly to all rostered patients telling them about the launch of the teletriage service but this has not occurred.

Some PCNs have made special provisions for the teletriage program. For example, at Carlisle PCN, the Medical Director has been designated responsibility for handling any teletriage problems. At Innovations PCN, one of the doctors is analyzing calls and doing a study on teletriage.

With the patient's consent, the ON-Call Healthline provides physicians with a daily written account of calls received from their rostered patients the night before. There is no consistent approach to how the Patient Encounter Form is used. Most physicians reported that they read the form. Some physicians follow-up with the patient, although this is at the physician's discretion and there does not appear to be any guidelines/criteria on when patient follow-up should be done. Many offices file the patient encounter form on the patient's chart. Some file the form separately. Some offices throw the form away. (Note: The Patient Encounter Form links the teletriage service to the physician; this linkage does not exist with Telehealth Ontario which is described later in this section.)

Physicians have received mixed feedback on the teletriage service from their patients. Some patients are positive about the new service because it provides an alternative to calling the doctor after hours, nurses are pleasant and helpful and some view the amount of time spent as an indication that the nurses really care about them. Some patients reported to their physician that the teletriage nurse phoned them back later for follow-up.

On the other hand, some patients have shared negative feedback about the teletriage service with their physicians. The most common complaint is that the call takes too long (sometime 40 to 50 minutes), there are too many questions and it is impossible to get a quick answer (e.g. for repeat problems, antibiotic prescriptions, etc.). Some patients complained that they have to repeat all the same information when they call their physician or go to the hospital emergency department. Some patients also told their physicians that they found some of the teletriage questions inappropriate and the nurses slightly impersonal.

Physicians have mixed views on the teletriage service. They acknowledge there are benefits to the teletriage service including:

- Having a trained and knowledgeable nurse interact with their patients
- Reduction in the number of calls physicians receive when on-call
- More time to spend with patients that need to be seen; they do not waste time on non-urgent calls
- Shorter calls because the patient has already talked through the situation with a teletriage nurse.
- Ability to gather data on community needs
- Patient education
- Teletriage nurses give phone advice, something that physicians will not do for legal reasons

Physician concerns include the following:

- At least one PCN has experienced a "serious" incident related to the advice given in a potentially dangerous patient situation
- Many think that the nurses are too quick to refer people, particularly to the emergency department *("seems like they never deal with problems themselves, they always refer")*
- The Patient Encounter Form needs to be improved to make it easier to read and use. Frequent comments included: "too cluttered", "lots of unnecessary technical information", "needs to be more user friendly", "printed in dot matrix therefore difficult to scan", "repetitive", "difficult to interpret", "hard to read as information is coded and abbreviated and hard to determine what advice was given"
- Many physicians thought that the forms should be received electronically
- A more detailed record of the patient encounter is available at MedCan however, not all physicians were made aware of this by the teletriage provider
- Some physicians indicated that they have always provided on call coverage and are comfortable doing so; for these physicians the need for a teletriage program is questionable
- Some physicians question the cost-effectiveness of the teletriage program, asserting that a physician that knows the patient can assess the patient's need faster; also many patients are told by the teletriage nurse to call the physician anyway
- It is a not a new or innovative concept
- It is perceived by some as "a political strategy to attend to the public relations issue around emergency room pressures"

Some of the individual PCNs have had unique experiences with the teletriage service that are important to note.

In the case of Chatham, the acceptance and implementation of the teletriage service has been very slow compared to other sites. One reason is that there is still a significant proportion of non-rostered patients at the Chatham PCN (less than 60% of enrolment target rostered as of March 2, 2001). Since the teletriage service is a benefit for rostered patients only, the physicians have refused to publicize the teletriage telephone number on their answering machines. They are waiting for information about the service to be mailed directly to their rostered patients.

The other issue for Chatham is that, in the past, Chatham physicians did not provide after-hours telephone coverage. Patients calling after-hours were routed to the hospitals or the family practice clinic (4 p.m. to 10 p.m). Chatham physicians report that when they were first approached about joining the pilot project, they expressed many concerns about the teletriage system. They were told that patients would speak with a nurse and if the nurse needed assistance she would contact the physician on call and ask for his or her advice as a consultant. The physicians later learned that 20-30% of MedCan's protocols end with a call to the physician. The Chatham physicians assert that they did not agree to speak with patients over the phone. They refuse to provide advice to patients over the telephone both from a medico-legal perspective as well as from a billing perspective (i.e. they cannot bill for taking such calls). Chatham PCN indicated that it has not signed the MedCan contract. There has been at least one recent incident where the teletriage nurse contacted the physician and the physician refused to call the patient.

Kingston PCN also has some unique issues with the teletriage service as a result of their rural location. Physicians who are using the service have noticed that the number of after hours' calls has decreased. However, some physicians feel that the quality of care being provided after-hours has decreased. Rural Kingston physicians have historically provided comprehensive after-hours telephone coverage to their patients. Some patients have had a difficult time adjusting to the fact that they can no longer simply call their physician after-hours. Second, patients have reported that the teletriage nurses based in North Bay are unfamiliar with the geographic realities of rural Kingston and the proximity to hospitals and clinics. This represents a decrease in the quality of care for patients who had been previously accustomed to calling after-hours and speaking directly to the on-call physician.

All of the PCNs in Hamilton are using the teletriage service except McMaster because it is so new. Another issue for McMaster PCN, an academic centre, is that historically, it has been the residents' role to take calls 24 hours per day, seven days per week, with physician back-up.

Since Hamilton is in the 905 area code it has been affected by the introduction of the provincial government's new telehealth program. "Telehealth Ontario" will be accessible 24 hours per day seven days per week, to all residents of Ontario. Currently the service is only available in North Bay, the 416 area code and the 905 area code. Hamilton physicians raised a number of concerns related to the impact of having two separate telephone advice services in the same community. Their concerns include:

- Patients are confused about which service to use
- Due to delays in Ministry approval of the ON-Call Healthline promotional materials, information about Telehealth Ontario was received by households in the Hamilton area before the printed material about the ON-Call Healthline was available to rostered PCN patients
- Telehealth Ontario may advise patients to go to walk-in clinics; this has a negative impact on PCN physician outside use rates and is counter to the advice that ON-Call Healthline provides (e.g. call the PCN doctor on call)
- Teletriage was seen as a bonus for patients that join a PCN, now everyone has it so its not a real incentive for rostering
- Some physicians are concerned about the intensions of the MOHLTC with regard to PCN teletriage program.

Questions to Guide Future Decision-making

- How will the impact of the parallel expansion of ON-Call Healthline and Telehealth Ontario be monitored?
- Are there mechanisms to gather information on the actions taken by teletriage callers relative to both their pre-intent and the advice they were given by the teletriage nurse that will be very helpful to the ongoing evaluation of the reform?
- Is there is a need for tools for the ongoing measurement of patient satisfaction with the teletriage?
- Should future development of the teletriage service be informed by both provider and patient input?
- How will some of the unique issues facing individual PCNs (e.g. low physician participation rates in Chatham, rural issues in Kingston) be addressed?

SECTION 17: INFORMATION TECHNOLOGY ASSESSMENT AND ACQUISITION

"We're a year and half into primary care reform and where's the beef?" (PCN Physician)

Section 17.1 Background and Functional Requirements

The Ministry of Health and Long Term Care has set the following goals for providing information technology (IT) to the Primary Care Reform sites:

- To provide clinical tools for primary care physicians which support goals of Primary Care Reform
- To improve quality of care
- To streamline medical practice administration
- To improve the cost effectiveness of health care services
- To evaluate the effectiveness, satisfaction, and costs and benefits of information technology

The government of Ontario earmarked $150 million in its 2000 budget for funding for Information Technology to support a voluntary movement to Primary Care Reform by Ontario family physicians.

In the *Global PCN Agreements*, each PCN committed that they "…shall obtain and use a clinical management system software package…". To incent and support physicians in meeting the IT goals for PCR the MOHLTC offered to pay for two-thirds of the costs related to the purchase and implementation of new clinical management systems including hardware and software.

Since physician choice was cited as an important principle, the MOHLTC did not specify the type of hardware and software to be purchased by physicians. Instead, they included in the *Global PCN Agreement* Appendix I - Clinical Management System Functional Requirements. Appendix I defines the information technology functions necessary for the implementation of the Primary Care Reform sites. These functional requirements were based on the document produced by the MOHLTC and OMA titled "Physician Requirements for Smart Systems, Phase I: Primary Care Reform Informatics."

The following general functions are required for conformance testing by the MOHLTC for Primary Care Reform:

- Linkages to MOHLTC systems for enrolment (rostering), payment, service encounter information, Ontario Drug Benefit medication history
- Primary care core data set (patient demographic, registration and medical information)
- Capability to link to other health providers such as laboratories and a telephone advisory service
- Clinical management tools for preventive care management, including drug utilization review, preventive screening and immunization routines
- Capability to access a network for the linkages defined above, and for internet and secure e-mail

- Security (access controls, audit trails, encryption)
- Practice management tools (e.g., OHIP billing, accounting, scheduling)

Each PCN was required to engage in a process to assess their IT needs, select the IT they wished to purchase, develop an IT budget and acquire/implement the new systems. Through site visit interviews with physicians, feedback has been gathered on each step in the process as well as overall views about the IT component of Primary Care Reform.

Section 17.2 Assessment of IT Needs

To support physicians in assessing their needs and identifying IT options, the networks received funds from the MOHLTC to hire an IT management consultant. Each network independently selected the management consultant of their choice. The consultants were to develop a report that would assist the networks in making their purchase decisions. The MOHLTC expected each network to submit a "…practice management consultant report", referenced in the Agreement, prior to approving the networks IT budget.

Most physicians expressed significant disappointment with the support they received from the consultants. There was a general feeling that the consultants did not understand the day-to-day workings of a physician's office, costs were high and value-added of the deliverables was questionable. Some networks terminated their consultants' contracts and then engaged new ones. Some physicians felt they were left hanging because the consultants were not involved from the beginning through to implementation. A few physicians suggested that there might have been a more cost-effective option if there was a single management consultant contract for all of the networks.

In addition, to the dissatisfaction with the management consultants, most physicians felt that the assessment process took a huge amount of time.

Section 17.3 IT Selection

Physicians generally felt ill prepared to make choices related to information technology. There were two main concerns. One concern was the amount of time involved. Applications all across North America were considered. A number of physicians reported that they attended vendor shows and read books on information technology.

The second concern was a feeling by many physicians that they did not have the knowledge and skills required to select an IT system. Some physicians felt that the MOHLTC and/or the OMA should have selected an appropriate IT solution for PCR, or developed a short-list and then let the physicians choose from the short-list. However, not all physicians shared this view.

Only five out of the eleven networks selected the same practice management system for the entire group. The other six networks selected at least two different software solutions within their group.

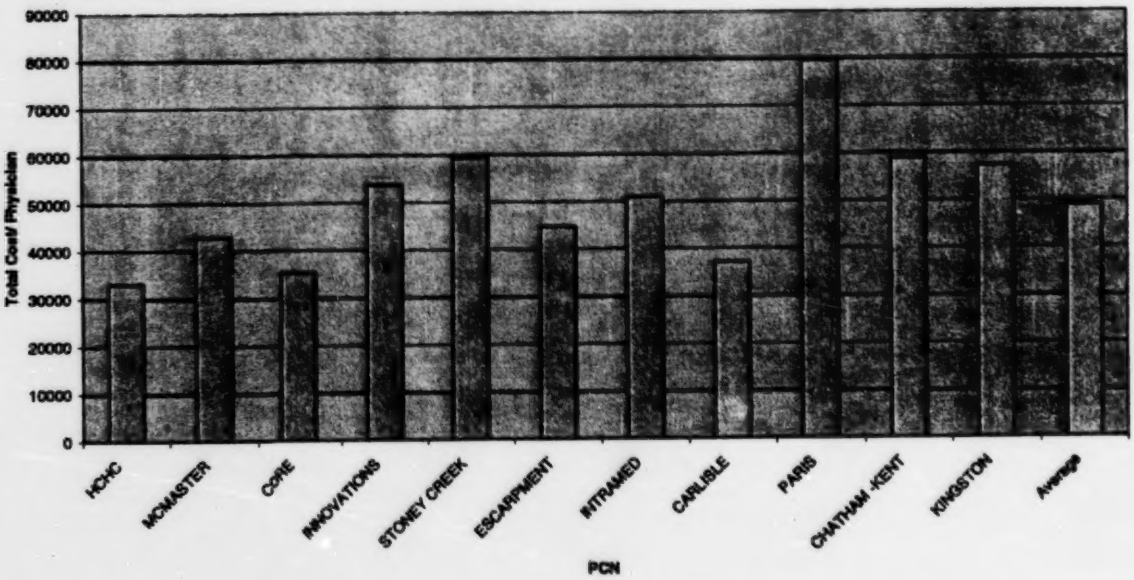
Some physicians were initially interested in software solutions from other countries (e.g. US, England) but were informed that the Ministry would not approve budgets for software purchased outside of Canada. According to the Ministry, no American software vendors applied for conformance testing. The Ministry will only fund CMS products that have passed conformance testing.

Section 17.4 IT Budgets

Each PCN had to develop an IT budget and submit it to the Ministry for approval. In some cases the PCN's budget was approved in its entirety. In other cases the Ministry did not approve the full amount requested. In several cases the budget went through many interactions.

The graph below shows that there was a wide range in the average total IT cost per PCN physician (including software, hardware, one-time operating costs, and ongoing operating costs for three years) from approximately $33,000 per physician to almost $79,000 per physician. The overall average total cost per physician was approximately $49,000.[5] These calculations are based on figures provided in the MOHLTC approved IT budgets. It is important to note that one-third of the total IT cost is borne by physicians and two-thirds is borne by the Ministry.

Total IT Cost Per Physician
(Includes Hardware, Software, One-Time Operating, and Ongoing Operating for 3 years)



---

[5] These figures take into account the 15 residents at the McMaster PCN who were provided with hardware and software.

The range of costs reflects the wide variation in the level of computerization that physicians and networks desire. For example, one network purchased an average of three workstations per physician (including laptops and portable tablets) while another network purchased more than double that amount.

Most physicians commented that there were delays in Ministry approval of their IT budgets, which delayed implementation of their new systems.

Section 17.5 IT Implementation

New IT systems are now in place in most, but not all, of the PCN offices. It was reported that some delays were due to the fact that vendors could not keep up with the demand for hardware and installations.

Most offices in the Hamilton PCN are now linked to the closest clinical laboratory. Some networks also hope to have linkages with radiology facilities fairly soon. Many physicians are using the preventive reminders and using and/or developing templates for common patient conditions in Hamilton.

The level of satisfaction with the new systems varies from office to office. Some physicians are quite pleased with the IT they have acquired. Others reported a number of problems including:

- Implementation surprises such as batteries for portable tablets that only lasted 1.5 hours and hardware and software incompatibility
- Frequent system failures
- Poor technical support from vendors
- Poor training from vendors

A major disappointment for physicians is that now that their new systems are ready to go, the Ministry is still not ready to implement the promised "Smart Systems for Health" that would connect various types of health care providers.

Another concern is that in some offices there is a great deal of IT infrastructure in place but not operational. Offices are still waiting for the virtual private network and electronic connections to other providers. Some physicians wonder whether the investment was worth it and whether they will be able to maintain the infrastructure once the funding stops.

As planning in this area continues to evolve there is a fear amongst physicians that the Ministry may eventually come out with new system requirements or a standard system that might make their IT acquisitions obsolete.

Section 17.6 Overall Views about the IT Component of PCR

The IT component of PCR is extremely important to physicians. Most of the physicians interviewed said that one of their main reasons for volunteering to be part of a primary care network pilot was to benefit from the opportunity to pursue new and advanced information technology. Some physicians expressed a specific desire to implement electronic medical records and move towards a paperless office. However, the acquisition and implementation of information technology was identified as second to rostering as the biggest challenge to getting the PCN up and running.

When physicians were asked what they hoped to achieve with new information technology their responses were:

- Preventive reminders
- Better clinical practice (e.g. graphing trends, information on drug interactions and medication profile, etc.)
- Electronic medical records (provided confidentiality issues are addressed), which would result in having up-to-date and comprehensive patient records
- Improved efficiency – which would streamline processes, save time, less paper
- Ability to link with other providers (e.g. specialists, hospitals, pharmacies, labs)
- Access from home
- Access to records of other physician's patients when on-call
- Ability to easily conduct research on certain patient groups
- Access to patient records with a hand-held device during home or hospital visits
- Support for evidence-based medicine; one physician noted that the literature indicates that physicians with clinical management systems get better outcomes

Although the "paperless office" is a goal for many physicians, some physicians questioned whether this is achievable because:

- Other health care providers may not have the infrastructure to support electronic linkages
- Inability of some to link to hospitals, CCACs, labs and pharmacies
- Teletriage information in paper format
- Historical records still in paper format
- Scanning takes too long
- Scanned material can be of poor quality
- Hard copy reports are often required (e.g. for specialists and insurance companies)
- System failures may prevent access to electronic records

The clinical management system general functional requirements might have created false expectations on the part of physicians. A number of physicians thought that the functional requirements were required immediately because the MOHLTC and other health care providers were ready to move ahead with a common electronic network. Physicians were looking forward to linking to the MOHLTC system for enrolment (rostering), the Ontario Drug Benefit program for medication history, other health providers and for secure e-mail.

Other concerns about the IT component of PCR relate to privacy, security and confidentiality issues including:
- Some physicians reported that the Ministry currently sends information to physicians over insecure networks (including fax machines)

Clearly there is much learning from the IT acquisition process that the pilots went through. When physicians were asked what tips they could share with physicians regarding information technology the following advice was provided:
- Talk to physicians already using the system
- Visit offices to see the system in action
- Use the same hardware and software vendor
- Ideally all offices within a PCN should use the same system
- Ongoing technical support is as important as the software program
- Don't be intimidated by IT

Section 17.7 Summary

An important issue going forward is what level of IT investment will be required to support province wide IT enhancements. If the current level of IT spending (i.e. $54,000 per physician) is to continue, resulting expenditures to bring 80% of the province's physicians into PCR would be approximately $423 million. If the MOHLTC continues with a policy of contributing two-thirds of costs related to information technology, a total Ministry investment of approximately $284 million would be required.

Questions to Guide Future Decision-making

- What level of IT funding is required for the provincial roll-out? What level of IT funding is feasible and sustainable?

- What are the implications for integration and connectivity of different IT systems being purchased by the various networks?

- Are the existing IT vendors prepared and capable of handling the increased demand (including technical support) as a result of province-wide PCR?

- Do 8,000 to 10,000 family physicians in Ontario constitute a sufficiently large market to attract vendors and stimulate development? For example, it was reported that England has [illegible]0,000 physicians in primary care, and in the US some vendors are supporting 150,000 physicians. Ten thousand physicians shared amongst a number of different vendors may not be lucrative for product development.

- Are there potential benefits associated with centralizing the IT selection and acquisition function?

SECTION 18: PHYSICIAN SATISFACTION

One of the goals of primary care reform in Ontario is increased provider satisfaction. This evaluation will attempt to measure provider satisfaction at various points in time. As a start, physicians were asked a number of questions during the site visit interviews to begin to get a sense of whether there have been any noticeable impacts of primary care reform and their general satisfaction level. A summary of the responses to these questions is provided below:

Section 18.1 Change in Practice Patterns

Approximately 30% of physicians have noticed changes in their practice patterns since joining a PCN. Similarly, just approximately one-third think that their patients have noticed changes since the start-up of the PCN. When changes were noted, they most often related to after hours coverage (e.g. fewer days on call and/or fewer after-hours calls for physicians; introduction of the teletriage service for patients).

Perceived Change in Practice Patterns

	Results	Number of Respondents
Physicians who have ***noticed changes in their practice patterns*** since joining a PCN	29.5%	N = 42
Physicians who think their ***patients have noticed changes*** since the start-up of the PCN	32.6%	N = 42

Section 18.2 Expectations

When asked to think back to the reasons why they decided to get involved with primary care reform, over 70% of the physicians interviewed said their expectations have been met. From a financial perspective, most physicians reported that they are no worse off financially than they were before PCR and many are financially better off.

Extent to which Physician Expectations have been met

	Results	Number of Respondents
Physicians who say their ***expectations of PCR have been met***	72.1%	N = 43

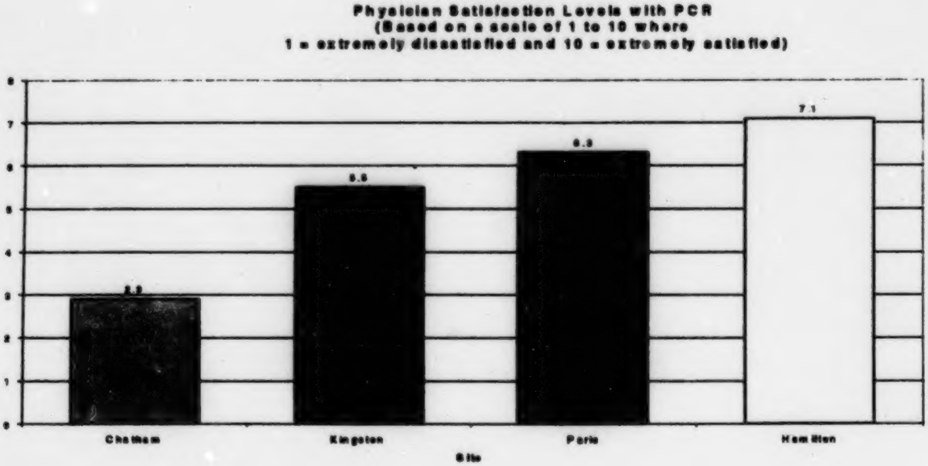
Section 18.3 General Satisfaction

The results in the table below suggest that physicians have a fairly high level of satisfaction with primary care reform generally. Most of the physicians interviewed are more satisfied now than they were prior to primary care reform. However, it is also important to note that approximately one in five physicians are less satisfied now than they were before taking part in primary care reform. (Issues and concerns related to dissatisfaction with specific aspects of PCN implementation were discussed earlier in this report.)

Overall Physician Satisfaction

	Results	Number of Respondents
Current level of satisfaction with PCR on a scale of 1 to 10 (10 = extremely satisfied; 1 = extremely dissatisfied)	Average = 6.5 Median = 7.0 Range = 2 to 9	N = 43
Physicians that are ***more satisfied now*** compared to pre-PCR level of satisfaction	52.4%	N = 42
Physicians that are ***less satisfied now*** compared to pre-PCR level of satisfaction	21.4%	N = 42
Physicians that have noticed ***no change*** in their level of satisfaction	26.2%	N=42

The satisfaction results are reported in the table above in an aggregate format for all PCNs. As the graph below illustrates, there are wide variations in satisfaction levels among sites. (Hamilton PCNs are shown as a group because there was little variation amongst PCNs in Hamilton).



Since the province-wide expansion of primary care networks will be on a voluntary basis, it will be important for the Ministry to understand the linkage between physician satisfaction and the reasons/expectations for getting involved with primary care reform.

Physicians in Chatham report that they are dissatisfied with reform. They joined the pilot primarily because of the offer of financial assistance for IT systems. As this component of the reform has not met their expectations, many of the participants would like to withdraw from the program.

IT assistance was also the most common reason for joining the pilot cited by Hamilton physicians. However, in contrast to the Chatham group, new IT systems are now in place in most PCN offices in Hamilton and there is a reasonable level of satisfaction with these systems. Another difference for the Hamilton site is that 42% of the PCN physicians in Hamilton were former HSO physicians. Some of the key aspects of primary care reform (e.g. capitation payment, rostering, etc) would not represent a change for former HSO physicians. However, there were no significant differences between the satisfaction levels of former HSO physicians and former fee-for-service physicians in Hamilton.

Most physicians in the Kingston and Paris sites got involved in PCR to change the way they practice medicine and they felt that the capitation payment system would greatly facilitate this. They are for the most part satisfied with their new situation. The IT component was considered an ancillary benefit that would assist in improving the delivery of care.

Most of the physicians interviewed shared their reasons for volunteering to be part of a primary care network pilot. These reasons are listed below in order of frequency:

12 Reasons Why Physicians Joined PCN Pilots

- **To benefit from financial support available for new/advanced information technology; to implement electronic medical records (Most physicians wished to use the new IT systems to improve patient care)**
- **Goals and practice style aligned with goals and directions for primary care reform**
- **To improve lifestyle (i.e. more manageable work schedule; ability to take time off; less on-call burden)**
- **Similar to former practice model so little change required (e.g. former HSO physician)**
- **Financial incentives**
- **Saw no future in the HSO program**
- **Wanted to get out of the fee-for-service payment model (including those who wanted to be capitated under the HSO program but HSO program was not accepting any new capitated physicians)**
- **Influenced by colleague**
- **Looking for something new and exciting**
- **Desire to be on the cutting edge and influence change**
- **Desire to share on-call coverage with a larger group**
- **Thought it would be obligatory in the future so they took the initiative to join first**

An understanding of the issues that physicians perceive as most challenging is also critical, because a fear of these challenges may discourage physicians from getting involved with primary care reform. There is also a risk that physicians may abandon the reform initiative if the challenges are not addressed. Physicians reported many challenges in the implementation

reform has not met their expectations, many of the participants would like to withdraw from the program.

IT assistance was also the most common reason for joining the pilot cited by Hamilton physicians. However, in contrast to the Chatham group, new IT systems are now in place in most PCN offices in Hamilton and there is a reasonable level of satisfaction with these systems. Another difference for the Hamilton site is that 42% of the PCN physicians in Hamilton were former HSO physicians. Some of the key aspects of primary care reform (e.g. capitation payment, rostering, etc) would not represent a change for former HSO physicians. However, there were no significant differences between the satisfaction levels of former HSO physicians and former fee-for-service physicians in Hamilton.

Most physicians in the Kingston and Paris sites got involved in PCR to change the way they practice medicine and they felt that the capitation payment system would greatly facilitate this. They are for the most part satisfied with their new situation. The IT component was considered an ancillary benefit that would assist in improving the delivery of care.

Most of the physicians interviewed shared their reasons for volunteering to be part of a primary care network pilot. These reasons are listed below in order of frequency:

12 Reasons Why Physicians Joined PCN Pilots

- **To benefit from financial support available for new/advanced information technology; to implement electronic medical records (Most physicians wished to use the new IT systems to improve patient care)**
- **Goals and practice style aligned with goals and directions for primary care reform**
- **To improve lifestyle (i.e. more manageable work schedule; ability to take time off; less on-call burden)**
- **Similar to former practice model so little change required (e.g. former HSO physician)**
- **Financial incentives**
- **Saw no future in the HSO program**
- **Wanted to get out of the fee-for-service payment model (including those who wanted to be capitated under the HSO program but HSO program was not accepting any new capitated physicians)**
- **Influenced by colleague**
- **Looking for something new and exciting**
- **Desire to be on the cutting edge and influence change**
- **Desire to share on-call coverage with a larger group**
- **Thought it would be obligatory in the future so they took the initiative to join first**

An understanding of the issues that physicians perceive as most challenging is also critical, because a fear of these challenges may discourage physicians from getting involved with primary care reform. There is also a risk that physicians may abandon the reform initiative if the challenges are not addressed. Physicians reported many challenges in the implementation

stage of their PCNs, the details of which were described earlier in this report. In the site visit interviews, physicians were asked to identify the "*biggest* challenge in getting your PCN up and running". A summary of the responses is provided below in order of frequency:

6 Biggest Challenges for Physicians in Getting their PCNs Up and Running

- **Enrolment (by far the biggest challenge reported)**
- **Information Technology acquisition**
- **Getting all of the physicians in the network to work together**
- **Contract negotiations with the Ministry**
- **Administrative burden**
- **Developing the on-call arrangements**

The over-arching theme for all of these challenges is the amount of time involved. All of the physicians that had any involvement in the implementation process reported that the time commitment was tremendous. Not only was more time required than they anticipated but physicians were not always compensated for their time. This will likely be a key issue for the province-wide roll-out of primary care reform.

In summary,

- Physician satisfaction levels are linked to the reasons why they joined the reform and whether or not their expectations have been met.
- Willingness of physicians to join or remain within primary care reform will likely be influenced by the extent to which the major challenges are addressed.
- In some networks, the physicians' experience in the contract negotiations also had an impact on their level of satisfaction.
- The time commitment required of physicians will be a critical factor in the provincial roll-out of primary care reform.

stage of their PCNs, the details of which were described earlier in this report. In the site visit interviews, physicians were asked to identify the "*biggest* challenge in getting your PCN up and running". A summary of the responses is provided below in order of frequency:

6 Biggest Challenges for Physicians in Getting their PCNs Up and Running

- **Enrolment (by far the biggest challenge reported)**
- **Information Technology acquisition**
- **Getting all of the physicians in the network to work together**
- **Contract negotiations with the Ministry**
- **Administrative burden**
- **Developing the on-call arrangements**

The over-arching theme for all of these challenges is the amount of time involved. All of the physicians that had any involvement in the implementation process reported that the time commitment was tremendous. Not only was more time required than they anticipated but physicians were not always compensated for their time. This will likely be a key issue for the province-wide roll-out of primary care reform.

In summary,

- Physician satisfaction levels are linked to the reasons why they joined the reform and whether or not their expectations have been met.
- Willingness of physicians to join or remain within primary care reform will likely be influenced by the extent to which the major challenges are addressed.
- In some networks, the physicians' experience in the contract negotiations also had an impact on their level of satisfaction.
- The time commitment required of physicians will be a critical factor in the provincial roll-out of primary care reform.

SECTION 19: PATIENT SATISFACTION

The following is a summary of the findings from four focus groups held as part of Phase 1 of the Evaluation of Primary Health Care Reform in Ontario.

Section 19.1 Methodology

Two of the eleven active pilot networks were selected to participate in the focus group component of this phase of the evaluation; namely the Carlisle Primary Care Network (PCN) just outside of Hamilton and the Kingston area PCN. In Kingston, two locations hosted focus groups including Harrowsmith (Sydenham and Verona) and Sharbot Lake. The Sharbot Lake focus group was comprised of patients who had seen a nurse practitioner in the past week.

Participants were randomly selected from a list of patients who self-identified as being interested in sharing their experiences with the PCN model. Participants were recruited to represent a mix of gender and age. Parents were also selected to attend. In total, 34 people participated in the groups including 15 men and 29 women. Although there were representatives of each age category recruited, the majority of participants were over age 55.

Section 19.2 Findings

The following paragraphs summarize the focus group findings.

Awareness

Awareness of Primary Care Reform is limited. For the most part, patients knew little about Primary Care Reform and its implications for them as participants in pilot Primary Care Network sites. However, this finding is likely exacerbated by the fact that three of the focus groups (two in Carlisle and one in Sharbot Lake) were held in communities that had previously been Health Service Organisations (HSO). As a result, many participants felt that what they were currently receiving was greatly similar to what they had had before the PCN was introduced. Further, the introduction of the PCN model took place between one year and two years ago in these communities. As a result, recall regarding the elements of reform was limited.

What patients did know about Primary Care Reform was generally learned through the media or from the information package and enrolment kit that they received. In the Verona focus group, participants had learned most of what they knew about reform from articles in the local newspaper. Patients did not receive, nor did they pursue, information from the health staff in the PCN about reform or the attributes of the pilot PCN.

The following points summarise more specific findings:

- Participants in Carlisle possessed limited awareness of the distinction between the Health Services Organization (HSO) and PCN models. For them, very little if anything had changed in terms of the service delivery and care as a result of enrolling in the PCN. Their perception was that the change was really a change to doctor billing practices.
- The level of knowledge of Primary Care Reform was similarly limited in Sharbot Lake. Based on what they did know, they stated that the changes were introduced to: prevent "shopping around" among doctors by patients; to provide a "team" approach to health care; to allow patients to access other clinics (i.e. those within the network) and to allow other health care practitioners within the network to access your health data. They were generally not aware of the effects of the reforms on doctors other than that doctors would be paid based upon their total patient number, not their total visit load.
- The Harrowsmith (Verona and Sydenham) focus group participants showed the greatest degree of understanding of what might be expected from a PCN. This was the one focus group where patients were not previously enrolled in a HSO.

Enrolment

Patients enrol to ensure ongoing and consistent care. For the most part, patients enrolled in the PCN as a matter of course to ensure ongoing access to their regular doctor. For many, the act of enrolling was a simple one, with limited hesitation.[6] As one participant put it, "Most people just signed up because it was part of the bureaucracy." Generally, however, patients enrolled because the PCN and associated services sounded like what they were already receiving and they wanted to continue to receive the same care.

Patients may be confused about the purpose of providing consent. There was hesitation by some individuals to complete the Consent Form. Those who did not sign the Consent Form did so because they were uncertain what would be done with their health information as a result. They did not understand why they needed to complete the form when their information was already being transferred to another doctor or a referred doctor (i.e. specialists). They believed that if they completed the Form that their health information would be too widely accessible.

Enrolment packages incited few questions. As a result of patients having seen the information two years ago, most participants said that they could not recall the nature of the information included in the forms; therefore they could not comment on whether the information provided was clear or whether anything in the material should be changed.

---

[6] The methodology called for only enrolled or rostered patients to be recruited for focus groups. As a result, this qualitative research did not include speaking to patients who chose not to enrol and their reasons for doing so.

More specific findings under this theme include:

- Participants in all groups noted that they had received their enrolment materials in 1999. Patients received a package in the mail, which included the enrolment form and a consent form. No one in Carlisle indicated that his or her doctor promoted enrolment or discussed the PCN model with him or her. Nor did they feel that it was necessary for their doctors to do so.

- Unlike the majority of participants who received a letter in the mail, in Sharbot Lake two participants indicated that they had received an enrolment form either from the receptionist or the nurse practitioner.

- In Sharbot Lake and Harrowsmith, participants referenced the media coverage that appeared around the same time that they received their enrolment information. They stated that the media coverage served to legitimize the reforms.

- With respect to the Consent Form sent in the package, in at least one group, one half of the participants indicated that they did not complete the Consent Form. They explained that they were unclear about how the information would be used. Those who did not complete the form feared that if they provided consent, their personal health information would be rolled up into a central provincial database. They were uncomfortable with how this information might then be used.

- Many others did not recall any concern over completing the Consent Form and indicated that they felt that sharing data would simply allow their health information to be more readily shared among the health practitioners in the Network.

- It was also felt by some participants in the Sharbot Lake focus group that enrolling in the Network would help to ensure that doctors would remain in the area. Patients in this community expressed concern over the high turnover of doctors up until the last few years (with the exception of one physician who has been at the clinic for close to 30 years). They suggested that doctors had been "burning out" due to high patient loads. They wondered if the Reforms would help to alleviate the problem.

Access to Care

Access to care is believed to have remained consistent. Given that the majority of focus group participants were already being served by HSOs, there was a sense that the care under the PCN model meant the status quo. In general, participants indicated that they had access to the care that they needed. The exception to this was Harrowsmith. Although participants in this group did not feel that their access to care had greatly changed, they felt that their expectations about improvements to access had not been fully materialised.

No change in waiting time was identified. There was no indication that the time between experiencing a health care need and getting an appointment with a care provider had changed. Patients indicated that their ability to see a doctor was related to the urgency of their situation. Some had used creative strategies to get an appointment with a doctor more quickly.

The PCN and HSO models may limit the need to travel to an emergency department. Based on focus group findings, patients were accessing the doctors at the PCN before going to an emergency department. For those benefiting from an HSO model prior to the PCN, the message was clear that they should seek assistance from their local PCN as a first line of aid.

The availability of a nurse practitioner enhances access to primary care. Focus Group participants who had been seen by a nurse practitioner consistently stated that they could more easily get information and assistance for their primary care from the nurse practitioner. The nurse practitioner generally had more time to spend with patients. They were also more available to see patients than the doctor.

More specific findings under this theme include:

- It was evident, especially in Carlisle, that some patients had a doctor who provided very personal service and even made house calls. However, this was long-standing behaviour that could not be associated with the PCN model. Older participants in Sharbot Lake and Harrowsmith noted candidly that in the past, "there were a lot of days when there was only a doctor one or two days a week".

- In Sharbot Lake, patients were quite satisfied with the two to three-day, to one-week wait period for appointments. In addition, the extended evening and weekend hours had improved access. However, parents in Harrowsmith were frustrated that they could not get in to see the doctor when they had a more urgent need (e.g. sick child who had been up all night, ear infection, etc.). They felt that there should be more flexibility to allow for short urgent appointments during regular office hours. The alternative to getting an appointment with the doctor at the PCN was to go to an emergency department, or to wait until the end of regular office hours and put in a call to the after hours doctor. Participants explained that neither of these were viable options because of the waiting time that they would experience at the emergency department or the unnecessary impact of having to call back the on-call doctor to the office when the doctor had already been in the office all day.

- No significant changes in waiting times while at the office were identified. Generally, Carlisle patients described the doctors as being "busy" and "always in a rush". One patient stated, "There is no time to ask about anything other than what you are coming in for." Although less adamant about this point in Sharbot Lake, participants talked about "15 minute blocks of time" between appointments and felt that no change had occurred around the length of time spent by the doctor with the patient. They did not feel that this amount of time was adequate in all cases. Very similar comments were heard in Harrowsmith with Verona and Sydenham patients.

- For many at the Carlisle and Sharbot Lake PCNs, the message that the physicians have been sending out for some time (this includes prior to the introduction of the primary care reform) was that patients should call the office first before rushing off to an emergency department. The on-call doctor would then make himself or herself available for a consultation or a visit at the office. The emergency department was used only as a "last resort." In Carlisle and Sharbot Lake, patients did indicate that the availability of a doctor outside clinic hours was making them less likely to go straight to the emergency department (unless the person that was triaging their call directed them to do so).

- In Harrowsmith, where no HSO had previously been in place, the messages coming from the PCN network appeared to be less focused on providing assistance prior to accessing an emergency department. It appeared that there had been occasions when an on-call doctor was not available. As a result, some patients noted that there had been a few times when they were told to go to emergency in Kingston.

- Patients in all locations noted that when making an appointment at the PCN, they were bothered by the receptionist's enquiry about the reason for their visit and their apparent role in clinic "triage". Patients saw this as an invasion of privacy. Some indicated that they would not provide details about the reason for their visit.

- A participant indicated that they were concerned that primary care reform would result in limits to the number of times that a doctor would see a particular patient. They believed that if a doctor saw a patient more than six times a year they would be penalized for additional visits. Another concern raised was the potential limit of a person's ability to obtain a "second opinion" from another doctor.

Coordination of Care

Coordination of care has changed minimally. From the patient perspective, coordination of care means easier access to health care beyond primary care. There is less concern over the availability of broader health care services at the primary level. Patients recounted stories of having difficulty obtaining appointments with specialists (e.g. a two year wait to see a specialist in autism for an autistic child). With respect to the availability and access of health care information across the network, there was limited evidence of patients going to other physicians in the network unless they had an urgent need. As a result, it was difficult to determine the level of coordination within the networks.

The introduction of systems to support coordination of care is believed to be behind schedule. In Harrowsmith, patients indicated that they believed that doctors could not yet access personal files across the Network because the computer systems were not yet in place.

Additional findings around this theme include:

- Carlisle patients indicated that they generally preferred to see their own doctor before another one in the Network. They also felt that the PCN provided access to other health care practitioners that were valuable, such as a dietician.

- Patients in Carlisle felt that patient information was already being shared among the doctors and nurses. They did not feel that the PCN model had changed this or enhanced it significantly.

- In Sharbot Lake, participants felt that their health care information was being shared among the doctors or the nurse practitioner that was seeing them. In particular, the nurse practitioner was cited as a key player in coordinating patient care. They were said to have consulted with the PCN doctors about specific matters and were able to provide information and referrals to other specialists (e.g. obstetrical appointments). The nurse practitioner was also playing a role educating patients. However, there was some concern expressed about the ability to get appointments with specialists. Areas of concern included psychological counselling and cardiology.

- In Harrowsmith patients did not feel that the introduction of the PCN had enhanced coordination, although they did realise that they could go to a doctor at another Network site if theirs was not available. They explained that they had been told in the media that reform would bring additional resources including a full-time nurse practitioner and an x-ray technician. They felt that these additional resources had not materialised.

Quality of Care

Quality of care is considered to be good to very good. There was general agreement within the groups that the quality of care received by patients is directly related to the way the individual doctor chooses to approach their profession and their patients. Some doctors take a more personal interest in their patients and understand their needs in depth; others are only able to commit more limited care and support. It is a question of their individual practice behaviour. Further, the addition of a nurse practitioner has enhanced the quality of primary care that patients receive due to improved access to health information.

Additional findings are summarised as follows:

- In all locations, patients' comments indicated that the availability of a Nurse Practitioner was a positive step in improving the provision of health care. Patients in Carlisle felt that there should be more nurse practitioners introduced throughout Ontario's primary care system. Participants in Harrowsmith also wanted increased access to their part-time nurse practitioner.

Overall Satisfaction Rating

Patients were very satisfied with the care they were receiving. All groups rated the care they were receiving through the PCN at 7 or above on a scale from 1 to 10. Given the rural nature of the communities visited, and the length of time that some participants had lived in the community, many were being seen by doctors that had been working there for many years. As such, they had developed relationships with those doctors and knew what to expect. Further, the HSO model previously in place at three of the four sites visited meant that the PCN model felt like 'business as usual' for the majority of patients.

More specific details of the ratings given by each community include:

- Patients in both of the Carlisle groups were asked to rate the quality of care that they received through the Network. On average, the clinic was rated 8 to 9 on a scale of 1 to 10
- In Sharbot Lake the results were similar with the patients rating the care they received between 8 and 9
- Harrowsmith rated their care between 7 and 8

Section 19.3 Key Success Factors for Implementation

Key to meeting the needs of patients and engaging buy-in are:

- A clear understanding by patients of what they are enrolling in
- Clarity as to the purpose of providing consent for the sharing of health information
- Assurance that what is promised and what is delivered are consistent

Section 19.4 Key Success Factors for Delivery

Key to meeting the program delivery expectations of patients include:

- Providing access to primary health care nurses and/or nurse practitioners who traditionally play a greater role in addressing preventative and primary health needs, including providing information and promoting patient education
- Ensuring that Network staff/reception/first line of communication is attuned to and supporting the model so that patient care can be well coordinated
- Ensuring patient access to a "second opinion". This may be required from outside the clinic or network
- Ensuring that teletriage has a clear understanding of where the person is situated in relation to their on call PCN doctor. Otherwise, patients may be directed to go to their closest emergency department rather than linking them with the doctor on call in their location
- Introducing the PCN model at sites which may already be providing care in a similar manner (e.g. HSOs)

PART D: SUMMARY

Section 20 **Summary of Findings**

Section 21 **Considerations for Moving Forward**

SECTION 20: SUMMARY OF FINDINGS

The implementation of primary care reform in Ontario to-date is a tale of successes and disappointments.

Close to 150 physicians have come forward to test this new model for three years. Two-thirds of the physicians in the pilots are former fee-for-service physicians and one-third are former HSO physicians. Most physicians report a fairly high level of satisfaction with primary care reform and many are more satisfied now than they were before primary care reform.

While, many have experienced an increase in income under the global capitation system, most physicians indicate that its greatest benefit of this payment mechanism has been the increased income stability. With greater income stability, they feel that they are better able to manage and use their time effectively. Some indicated that the capitation payment model was more closely aligned with their practice patterns. Several said they had found it difficult to operate under the fee-for-service-model. Some had wanted to be on capitation but the HSO program was no longer accepting new physicians. PCR presented an opportunity to participate on this payment mechanism. Physicians in the reformed-fee-for-service payment mechanism have not been as satisfied with the pilot.

Networks, such as Carlisle, HCHC, Escarpment, McMaster, Core and Ottawa, have built on existing group practices. Others, such as Paris and to some extent Kingston, built on existing call-groups. Innovations and Chatham have formed new affiliations for the purpose of primary care reform. Clearly, the pilot physicians have learned lessons and skills (e.g. administration, negotiation, budgeting, planning, change management, IT acquisition, etc) that will be of value to the rest of the province.

Approximately 220,000 patients have been rostered. Some communities have had significant success with rostering. For example, the Paris PCN is at 111% of its estimated enrolment target and five other PCNs are above 80% of their enrolment target. In Hamilton, the number of patients that have signed enrolment forms corresponds to 51% of the Hamilton-Wentworth adult population. Patients' use of the teletriage service has been much greater than anticipated.

Feedback directly from patients indicates that:

- Awareness of Primary Care Reform is limited
- Patients enrol to ensure ongoing and consistent care
- The availability of a nurse practitioner enhances access to primary care
- Access to care is believed to have remained consistent
- No change in waiting time was identified
- Patients may be confused about the purpose of providing consent
- Enrolment packages incited questions
- The PCN and HSO models may limit the need to travel to an emergency department
- Coordination of care has changed minimally
- The introduction of systems to support coordination of care is believed to be behind schedule

- Quality of care is considered to be good to very good
- Patients were very satisfied with the care they were receiving

In terms of infrastructure, in most networks, legal agreements have been finalized, budgets have been developed, a telephone advice service has been introduced and new information technology systems are in place in most networks.

Unfortunately these accomplishments cannot overshadow the widespread disappointment in the process undergone to achieve these successes. Many physicians and other stakeholders view the pace of the pilot implementation as slower than expected. There are issues related to the role of all three of the key parties in the reform process – physicians, the OMA and the Ministry.

Physicians have been expected to "donate" a substantial amount of time to the establishment of the networks. They admit to being very naïve at the start of the primary care reform process. None expected the process to be as long and as time consuming as it was. For many, this unanticipated burden had a large impact on their practices. Physicians acknowledge that the time taken for physicians within a PCN to reach agreement amongst themselves on the terms of the contract contributed to the length of the implementation process. In some cases the organization of the network has challenged physicians' administrative skills.

Physician satisfaction levels were significantly lower in the PCN that is using the reformed fee-for-service payment mechanism. There are significant issues at this PCN related to information technology and the teletriage service. It was suggested that the payment mechanism has contributed to the low satisfaction levels in Chatham because the physicians report that they have been unable to offset the extra costs of information technology, the time required for administering the network and time involved in providing on-call coverage (since they cannot bill for telephone advice). Also, utilization of the bonus codes system has been lower than anticipated.

The OMA has provided a variety of assistance to the PCNs including assistance with governance agreements and establishment of the teletriage service. However, many physicians mentioned that they would have welcomed more support from the OMA, and felt there was an opportunity for greater understanding of the needs and concerns of the pilot physicians. Examples include: the omission of the primary care pilot physicians from the recent fee increase for fee-for-service physicians; the preference of many networks for the global capitation payment mechanism; and the emphasis on physician choice when many physicians would have preferred that the Ministry play a greater role in choosing the information technology.

While many physicians feel that the Ministry implementation team was approachable and fair, concerns about the Ministry's role in the implementation process have included approval delays, failure to meet timelines, unrealistic expectations of physicians, a lengthy and complicated legal agreement, lack of sensitivity to local issues and, what one physician described as a number of *"we haven't thought of that, we'll have to get back to you instances"*.

However, the biggest source of dissatisfaction with the reform is the information technology acquisition process. It has been characterized as inefficient, fragmented, lengthy and resource-intensive. Important components of the IT systems to support primary care reform are behind schedule (e.g. electronic enrolment; a Virtual Private Network, shared medical records among physicians, linkages to other health care organizations, Smart Systems for Health, etc.).

Other areas where the pilots have fallen short of the plans for primary care reform are the number of active networks, the prevalence of solo practices and the related mindset, and the limited multidisciplinary involvement.

The plan for the primary care pilot includes seven sites: Hamilton, Kingston, Chatham, Paris, Parry Sound, Ottawa and Thunder Bay. To date only four of these sites (Hamilton, Kingston, Chatham and Paris) have finalized agreements with the Ministry and established primary care networks.

At this stage, sole practitioner offices are the prevailing delivery models in the primary care networks. With this model often comes a solo practice mindset that emphasizes an independent style of practice. The Primary Care Network Agreement does not set any expectations for collaboration of physicians working in PCNs other than the requirement for a formal governance agreement that includes a clinical philosophy, the need for a decision-making structure and on-call arrangements. According to the 1999 report, "Proposed Inter-professional Primary Health Care Groups (PCGs) Costing Models" by Milliman and Robertson Inc:

"True group practice is not office sharing. It financially links providers within a single business unit and provides a management structure for making decisions that are binding on all group members. The group receives payment for services provided for its total enrolled members. Individual provider reimbursement is based upon criteria established by the group – typically a combination of individual and shared goals. Providers are accountable to their peers and in this setting, it is impossible to avoid review of practice patterns, clinical outcomes, customer service and resource utilization."

All of the PCNs have structures in place for making decisions. However, at this stage, the financial links are limited to the primary care reform funding provided by the Ministry for administration, enrolment and IT.

Essentially, physicians have maintained the same physical facilities they had before primary care reform. There has been no movement toward greater co-location. While it is acknowledged that group practice is not just about office sharing, the evaluation of primary care reform in Alberta identified several benefits to co-location[7].

Another potential barrier to moving away from the solo practitioner mindset is the fact that, in some cases, the physicians within a network have selected different information technology systems, which may limit connectivity in the future.

---

[7] "Advancing Primary Health Care in Alberta Final Evaluation Report", Howard Research and Instructional Systems Inc., September 2000, page 43.

The Global PCN Agreement identifies "enhancing the involvement and appropriate role of primary care physicians" and "enhancing the involvement of non-physician primary care providers" as a desired strategy for achieving the goal of improved quality and continuity of care. Former HSO offices have been able to maintain their multidisciplinary staff (nurses, nurse practitioners, social workers, psychotherapists, and dieticians) that are funded by the Institutional Substitution Program (ISP) or specific hospital outreach programs.

Beyond these "grandfathered" resources only seven new nurse practitioner positions have been funded for the primary care reform project. The ratio of nurse practitioners to physicians generally ranges from 1:2 to 1:21. One nurse practitioner in Hamilton works with 21 physicians in ten different offices. Concern about inequities in the distribution of multidisciplinary staff amongst the networks was also raised in the 2000 report of the Office of the Provincial Auditor, which states that *"while the Ministry has permitted HSO physicians who join primary care networks (PCNs) to keep their ISP grants, other physicians in PCNs have not been provided with any similar compensation. This may create inequities in services and potentially complicates the evaluation or comparison of primary care networks."* The Auditor's report also recommends that the Ministry *"provide guidance on the combinations of health care providers that are required to provide high-quality and cost-effective health care"*.

A final observation from the first phase of the evaluation was the lack of broad community involvement in the planning and implementation of the networks. Community consultation is not a requirement for primary care reform pilots in Ontario however other jurisdictions have identified benefits to community involvement in primary care planning. For example, in Alberta, *"several [primary care] projects involved stakeholders in the formulation of the project itself, in its implementation, and certainly in contributing to a determination of its success. Some projects involved stakeholders in an integral way – that is, in actually planning the services that would be delivered to them."*

Many of these findings will not come as a surprise to the Ministry and other stakeholders. It is evident that steps are being taken along the way to continually improve the primary care reform process. For example, the research studies commissioned by the Ministry to explore rostering, physician IT acquisition, payment mechanisms and performance measures for family physicians. Another more visible example of the Ministry's acknowledgement of the need for a different approach is the establishment of a new agency to oversee the province-wide reform process.

M121

IMPORTANT NOTE CONCERNING THE FOLLOWING PAGES

THE PAGES WHICH FOLLOW HAVE BEEN FILMED TWICE IN ORDER TO OBTAIN THE BEST REPRODUCTIVE QUALITY

USERS SHOULD CONSULT ALL THE PAGES REPRODUCED ON THE FICHE IN ORDER TO OBTAIN A COMPLETE READING OF THE TEXT.

REMARQUE IMPORTANTE CONCERNANT LES PAGES QUI SUIVENT

LES PAGES SUIVANTES ONT ÉTÉ REPRODUITES EN DOUBLE AFIN D'AMÉLIORER LA QUALITÉ DE REPRODUCTION

LES UTILISATEURS DOIVENT CONSULTER TOUTES LES PAGES REPRODUITES SUR LA FICHE AFIN D'OBTENIR LA LECTURE DU TEXTE INTÉGRAL

Micromedia
ProQuest

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

SECTION 21: CONSIDERATIONS FOR MOVING FORWARD

This Phase 1 Report was prepared at a very early stage in the study process making it difficult to propose concrete recommendations. However, a great deal of very helpful and insightful information was obtained on the implementation of primary care networks. Since the province-wide expansion of primary care reform is scheduled to begin very shortly, it is important to capture the evaluation's early learnings so that the Ministry can begin to address the questions posed by the pilot experiences. The following is a list of considerations for moving forward that was compiled to highlight opportunities for improvements to the existing pilots and to provide guidance for the establishment of new PCNs.

Questions to Consider in Moving Forward with Province-wide Primary Care Reform

Ministry Infrastructure
- Does the Ministry have the appropriate infrastructure and resources in place to support a potentially rapid province-wide expansion of primary care reform (including clear policies/guidelines on key issues, ability to adhere to timelines and meet commitments)?
- How will the new Ontario Family Health Network be linked to the evaluation process to ensure that the information needs of the new agency are addressed?
- How can an understanding of physician characteristics be leveraged to improve provider satisfaction and increase willingness of physicians to remain in primary care networks (e.g. recognition of the reasons why physicians choose to participate in primary care reform, their satisfaction "drivers" and their limitations in terms of time and skill sets)?
- How can the lessons learned and best practices from the implementation of the pilot PCNs be captured and documented? What mechanisms can be developed to get feedback and input from the primary care providers?

The Evolving Primary Care Reform Model
- How can a balance be achieved between the benefits of a consistent, province-wide approach and the need for responsiveness to individual network issues (e.g. rural vs. urban issues, outside use rates, proximity and links to other health providers, types of procedures, practice size, call-group realities, etc.)?
- How generalizable is the experience of the pilots in light of some of the physician characteristics that differ from the provincial profile?
- Are there specific expectations or indicators for group practice arrangements that should be made explicit?
- What mechanisms can be put in place to streamline the contract negotiations process?
- What mechanisms can be put in place to minimize the administrative burden in new PCNs?
- Should other approaches to rostering be explored?
- What changes, if any, might be required to improve the capitation payment system and/or the reformed-fee-for-service payment system?
- How can multidisciplinary involvement in the networks be enhanced?
- What are the implications of having two separate telehealth advisory services evolving in parallel in the province?

SECTION 21: CONSIDERATIONS FOR MOVING FORWARD

This Phase 1 Report was prepared at a very early stage in the study process making it difficult to propose concrete recommendations. However, a great deal of very helpful and insightful information was obtained on the implementation of primary care networks. Since the province-wide expansion of primary care reform is scheduled to begin very shortly, it is important to capture the evaluation's early learnings so that the Ministry can begin to address the questions posed by the pilot experiences. The following is a list of considerations for moving forward that was compiled to highlight opportunities for improvements to the existing pilots and to provide guidance for the establishment of new PCNs.

Questions to Consider in Moving Forward with Province-wide Primary Care Reform

Ministry Infrastructure

- Does the Ministry have the appropriate infrastructure and resources in place to support a potentially rapid province-wide expansion of primary care reform (including clear policies/guidelines on key issues, ability to adhere to timelines and meet commitments)?
- How will the new Ontario Family Health Network be linked to the evaluation process to ensure that the information needs of the new agency are addressed?
- How can an understanding of physician characteristics be leveraged to improve provider satisfaction and increase willingness of physicians to remain in primary care networks (e.g. recognition of the reasons why physicians choose to participate in primary care reform, their satisfaction "drivers" and their limitations in terms of time and skill sets)?
- How can the lessons learned and best practices from the implementation of the pilot PCNs be captured and documented? What mechanisms can be developed to get feedback and input from the primary care providers?

The Evolving Primary Care Reform Model

- How can a balance be achieved between the benefits of a consistent, province-wide approach and the need for responsiveness to individual network issues (e.g. rural vs. urban issues, outside use rates, proximity and links to other health providers, types of procedures, practice size, call-group realities, etc.)?
- How generalizable is the experience of the pilots in light of some of the physician characteristics that differ from the provincial profile?
- Are there specific expectations or indicators for group practice arrangements that should be made explicit?
- What mechanisms can be put in place to streamline the contract negotiations process?
- What mechanisms can be put in place to minimize the administrative burden in new PCNs?
- Should other approaches to rostering be explored?
- What changes, if any, might be required to improve the capitation payment system and/or the reformed-fee-for-service payment system?
- How can multidisciplinary involvement in the networks be enhanced?
- What are the implications of having two separate telehealth advisory services evolving in parallel in the province?

Information Technology

- Based on information technology expenditures to date, what level of financial investment will be required to support expansion of primary care reform to approximately 8,000 physicians?
- How does this financial forecast compare to the $150 million in funding that has been announced for information technology systems?
- Are there opportunities to reduce the amount of investment required through economies of scale?
- Is the decentralized approach to information technology acquisition sustainable for the provincial roll-out of primary care reform?
- Is the vendor community prepared to handle the high demand resulting from province-wide primary care reform?

Stakeholder Relationships

- Are there benefits to a collaborative approach by primary care physicians to address common needs and advocate common issues and concerns?
- Are there benefits to exploring strategies for greater community stakeholder involvement in the planning and development of primary care networks?